OIPE
APR 0 1 2004
PATENT & TRADEMARK OFFICE
JC169

SEQUENCE LISTING

<110> Krolewski, Andrzej S.
Pezzolesi, Marcus G.
Nagase, Terumasa

<120> TYPE 2 DIABETES MELLITUS GENES

<130> 10276-078001

<140> US 10/694,685
<141> 2003-10-28

<150> US 60/421,844
<151> 2002-10-28

<160> 40

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 4211
<212> DNA
<213> Homo sapiens

<400> 1
aaatcagatg ctctgtgatt aatcgtggag gattcaggac acgaccacaa acgctgccag 60
ataagagtcc cggctgcatt atcagagccc ggcagggcac cggcctccct gcaccagaag 120
gaagactcgg ggcgcagcag gtcctcaagg cgatcttccc agagagcggg accagcggct 180
ggtggccagt gtggatggaa tttgcagagc cctagctcga gtccgggagt cccgggccag 240
atgggagcag acgcttgctg gcggcaatag ggaaagtgag gcagctgcaa ggagggcggc 300
gggactgcac tcgagtgtcc agacctgctc gatggtgacc accatgtcgg tgaggttgcg 360
gttcctgtcc cctggggaca caggggccgt gggggtcgtg ggccggagcg cctccttcgc 420
aggcttcagc agtgcacaga gccggaggat cgcaaagtcc atcaacagga actccgtgag 480
atcgcgaatg cctgcaaaat cctccaagat gtacggcacg ctgcggaagg ggtcggtctg 540
tgcagacccg aagccccagc aggtgaagaa gatcttcgaa gcattgaaaa gaggcctcaa 600
ggagtatctg tgtgtgcagc aggctgagct ggaccacctg tctggacgcc acaaagacac 660
caggaggaat tccaggctgg ctttctatta tgacctggac aagcaaacgc gctgtgtgga 720
aaggcacatt cggaagatgg agtttcacat cagcaaggtg gatgagctgt acgaggacta 780
ctgcatccag tgccgcctgc gcgacggcgc ctccagcatg cagcgggcct tcgcccggtg 840
ccccccgagc cgcgcagccc gagagagcct gcaggagctg ggccgcagcc tgcacgagtg 900
cgccgaggac atgtggctca tcgaggggcc cctggaggtt cacctgggcg agttccacat 960
caggatgaaa ggcttggtgg gctacgcacg cctctgtccc ggagaccact atgaggtgct 1020
catgcgtctg ggccgccagc gttggaagct caagggtcgg atcgagtcag atgacagcca 1080
gacctgggac gaagaggaga aggccttcat ccccacgctg catgagaacc tggacatcaa 1140
ggtgacggag ttgcggggcc tgggctcgct ggctgtgggt gcagtgacgt gtgacatcgc 1200
cgacttcttc acgacgcggc cgcaggtcat cgtggtggac atcacggagt tgggtaccat 1260
caagctgcag ctggaggtgc agtggaaccc gtttgatact gagagcttcc tggtgtcacc 1320
cagccccacg ggcaagtttt ctatgggcag caggaagggc tccttgtaca actggacacc 1380
cccgagcacc cccagcttcc gggagagata ctacctgtct gtcctacagc agccaacaca 1440
gcaggccttg ctgctgggtg gcccaagggc cacctccatc ctcagctacc tgtctgacag 1500
cgacctccgg ggtcccagcc taagaagcca gagtcaggag ctgcctgaga tggactcctt 1560
cagctctgag gacccccgag acacggagac cagcacgtcg gcgtccacct cagatgtggg 1620
cttcctgccc ttgaccttcg gtccccacgc ctccattgaa gaggaggctc gggaggaccc 1680
cctgccccca ggtctcctgc cagagatggc ccacctctct ggaggcccgt ttgcagagca 1740

```
gcctggctgg aggaacttag gaggggagag ccccagcctg ccacagggct ccctgttcca    1800
cagcggcaca gcctcgagta gccagaacgg ccacgaggaa ggggcaaccg gggacagaga    1860
ggacgggcct ggcgtggccc tcgaggggcc tctgcaggag gtcctggagt tgctgaggcc    1920
cacggactcc acccagcccc agctccggga gctggagtac caggtcctcg gcttccggga    1980
ccggctgaag ccctgcagag cacggcagga gcacacctcg gccgagagcc tgatggagtg    2040
catcctggag agcttcgcct tcctcaatgc cgacttcgcc ctggatgagc tgtccctgtt    2100
tgggggctcc cagggtctcc gaaaggaccg gcccctgccc ccaccgtcat cactgaaagc    2160
gtcatccagg gaactcacag ccggtgcccc agagctggac gtgctgctga tggtacacct    2220
ccaagtctgc aaagctctgc tgcagaaact ggcctccccc aatttatcaa ggctggtcca    2280
ggaatgcctc ctggaagaag tggcacagca aaagcacgtt ctggagacac tttctgtcct    2340
tgactttgag aaggtcggca aggcaacatc cattgaagag atcatcccac aggcctcgcg    2400
gacgaagggg tgcctgaagc tgtggagagg gtgcacaggg cctggcaggg tcctgtcctg    2460
ccctgccacg acgctgctga accagctcaa gaaaaccttc cagcacagag tcagagggaa    2520
gtacccagga cagctggaaa tagcgtgccg caggctcctg gagcaggtgg tcagctgtgg    2580
tgggctgctc cccggagctg ggctcccaga agaacagatc attacctggt tccagtttca    2640
cagctacctg cagaggcaga gcgtctctga cctggagaag cacttcaccc agctcaccaa    2700
ggaagtgaca ctcatcgagg agcttcactg tgcgggacag gccaaggtgg tccggaagct    2760
gcaggggaag cggctgggcc agctccagcc tctgccccag accttaagag cctgggcgct    2820
gctccagctg gacggcactc cgagggtgtg cagggcggcc agcgctcgcc tggctggtgc    2880
agtcaggaac agaagcttcc gggaaaaggc tttgctgttc tacaccaacg ccctggcaga    2940
gaacgacgca aggctccagc aggccgcatg cctagcgctc aaacacctca agggcattga    3000
aagcatcgac cagactgcca gcctgtgcca gtctgacctg gaggccgtgc gggcggcagc    3060
ccgggaaacc acactgtcgt tcggtgaaaa aggacggtta gcttttgaga agatggacaa    3120
gctctgctca gaacaaagag aagtcttttg ccaggaggca gatgttgaaa tcacaatatt    3180
ttaaaaaatc ctggctgatg agcacaaatc tcacatcgtt ttttttgctg ctgcccagcc    3240
tggacatagc ctgcactctg ggtaatggtg ctgtgcactc ctccaggagt gtgagctgcc    3300
cagagctcta cctgagactc cggccattga cccagcccca gggcatgggc tggtcttttg    3360
tacagaggca gaaaaaagca aggcaaaggt acagcattcc aggggctgca cggcctcaac    3420
agagcgctca acttctggct gagggtctgt gtgaccttcc ccgagatgca gagctgagcc    3480
aaactaggtg gccacctaca aaagggccaa ggccaggcaa gttgaggccc taaataaaag    3540
gctccaaggc aagtgtgtag aactccaggc ctcgctgccg gtcagctgct cggcacttct    3600
gcgtcaagag gcactgggga tgcagcaggc tggcaggtgg ctggccctgc taatgcaaga    3660
ctgctcaggc catttcagca gcagccaggt gtcaccttgg tgagctgggg aaggtgggaa    3720
ggcacaaagc cagggtttct acaaccacac tctcagcccg actgacttgc tgcgagtgct    3780
ggtggagctc acagacggcg gctggtggat ggtggactgt gaacctcact ttccctatgt    3840
tcagcagcac aaagggaaga agccaccaca tcagcccagg agccctgagc agcacaggca    3900
gtagggccac tcactttggc catccgcacc caaatgcaat caatcaaccc agcttcggaa    3960
gctaccctag gatctcgtca ataaactgct aagaagccat caactggcct aaagaaagag    4020
ttcactgaag aacgcaattg ctttaaagaa agaaaaatta gtttcctatt taagtcttaa    4080
aaaaaagcaa accatgtcct gagatgtctg tgttaatagt gcagagagaa cctagggttt    4140
gaggttgctg tagcaatggc attggagaac tttaacttga acattctcat cgatacttcc    4200
tggacatatt t                                                        4211
```

<210> 2
<211> 946
<212> PRT
<213> Homo sapiens

<400> 2

```
Met Ser Val Arg Leu Arg Phe Leu Ser Pro Gly Asp Thr Gly Ala Val
 1               5                  10                  15
Gly Val Val Gly Arg Ser Ala Ser Phe Ala Gly Phe Ser Ser Ala Gln
            20                  25                  30
Ser Arg Arg Ile Ala Lys Ser Ile Asn Arg Asn Ser Val Arg Ser Arg
        35                  40                  45
Met Pro Ala Lys Ser Ser Lys Met Tyr Gly Thr Leu Arg Lys Gly Ser
    50                  55                  60
```

```
Val Cys Ala Asp Pro Lys Pro Gln Gln Val Lys Lys Ile Phe Glu Ala
65                  70                  75                  80
Leu Lys Arg Gly Leu Lys Glu Tyr Leu Cys Val Gln Gln Ala Glu Leu
                85                  90                  95
Asp His Leu Ser Gly Arg His Lys Asp Thr Arg Arg Asn Ser Arg Leu
            100                 105                 110
Ala Phe Tyr Tyr Asp Leu Asp Lys Gln Thr Arg Cys Val Glu Arg His
        115                 120                 125
Ile Arg Lys Met Glu Phe His Ile Ser Lys Val Asp Glu Leu Tyr Glu
    130                 135                 140
Asp Tyr Cys Ile Gln Cys Arg Leu Arg Asp Gly Ala Ser Ser Met Gln
145                 150                 155                 160
Arg Ala Phe Ala Arg Cys Pro Pro Ser Arg Ala Ala Arg Glu Ser Leu
                165                 170                 175
Gln Glu Leu Gly Arg Ser Leu His Glu Cys Ala Glu Asp Met Trp Leu
            180                 185                 190
Ile Glu Gly Ala Leu Glu Val His Leu Gly Glu Phe His Ile Arg Met
        195                 200                 205
Lys Gly Leu Val Gly Tyr Ala Arg Leu Cys Pro Gly Asp His Tyr Glu
    210                 215                 220
Val Leu Met Arg Leu Gly Arg Gln Arg Trp Lys Leu Lys Gly Arg Ile
225                 230                 235                 240
Glu Ser Asp Asp Ser Gln Thr Trp Asp Glu Glu Glu Lys Ala Phe Ile
                245                 250                 255
Pro Thr Leu His Glu Asn Leu Asp Ile Lys Val Thr Glu Leu Arg Gly
            260                 265                 270
Leu Gly Ser Leu Ala Val Gly Ala Val Thr Cys Asp Ile Ala Asp Phe
        275                 280                 285
Phe Thr Thr Arg Pro Gln Val Ile Val Val Asp Ile Thr Glu Leu Gly
    290                 295                 300
Thr Ile Lys Leu Gln Leu Glu Val Gln Trp Asn Pro Phe Asp Thr Glu
305                 310                 315                 320
Ser Phe Leu Val Ser Pro Ser Pro Thr Gly Lys Phe Ser Met Gly Ser
                325                 330                 335
Arg Lys Gly Ser Leu Tyr Asn Trp Thr Pro Pro Ser Thr Pro Ser Phe
            340                 345                 350
Arg Glu Arg Tyr Tyr Leu Ser Val Leu Gln Gln Pro Thr Gln Gln Ala
        355                 360                 365
Leu Leu Leu Gly Gly Pro Arg Ala Thr Ser Ile Leu Ser Tyr Leu Ser
    370                 375                 380
Asp Ser Asp Leu Arg Gly Pro Ser Leu Arg Ser Gln Ser Gln Glu Leu
385                 390                 395                 400
Pro Glu Met Asp Ser Phe Ser Ser Glu Asp Pro Arg Asp Thr Glu Thr
                405                 410                 415
Ser Thr Ser Ala Ser Thr Ser Asp Val Gly Phe Leu Pro Leu Thr Phe
            420                 425                 430
Gly Pro His Ala Ser Ile Glu Glu Glu Ala Arg Glu Asp Pro Leu Pro
        435                 440                 445
Pro Gly Leu Leu Pro Glu Met Ala His Leu Ser Gly Gly Pro Phe Ala
    450                 455                 460
Glu Gln Pro Gly Trp Arg Asn Leu Gly Gly Glu Ser Pro Ser Leu Pro
465                 470                 475                 480
Gln Gly Ser Leu Phe His Ser Gly Thr Ala Ser Ser Ser Gln Asn Gly
                485                 490                 495
His Glu Glu Gly Ala Thr Gly Asp Arg Glu Asp Gly Pro Gly Val Ala
            500                 505                 510
Leu Glu Gly Pro Leu Gln Glu Val Leu Glu Leu Leu Arg Pro Thr Asp
```

```
        515                 520                 525
Ser Thr Gln Pro Gln Leu Arg Glu Leu Glu Tyr Gln Val Leu Gly Phe
    530                 535                 540
Arg Asp Arg Leu Lys Pro Cys Arg Ala Arg Gln Glu His Thr Ser Ala
545                 550                 555                 560
Glu Ser Leu Met Glu Cys Ile Leu Glu Ser Phe Ala Phe Leu Asn Ala
                565                 570                 575
Asp Phe Ala Leu Asp Glu Leu Ser Leu Phe Gly Gly Ser Gln Gly Leu
            580                 585                 590
Arg Lys Asp Arg Pro Leu Pro Pro Pro Ser Ser Leu Lys Ala Ser Ser
        595                 600                 605
Arg Glu Leu Thr Ala Gly Ala Pro Glu Leu Asp Val Leu Leu Met Val
    610                 615                 620
His Leu Gln Val Cys Lys Ala Leu Leu Gln Lys Leu Ala Ser Pro Asn
625                 630                 635                 640
Leu Ser Arg Leu Val Gln Glu Cys Leu Leu Glu Glu Val Ala Gln Gln
                645                 650                 655
Lys His Val Leu Glu Thr Leu Ser Val Leu Asp Phe Glu Lys Val Gly
            660                 665                 670
Lys Ala Thr Ser Ile Glu Glu Ile Ile Pro Gln Ala Ser Arg Thr Lys
        675                 680                 685
Gly Cys Leu Lys Leu Trp Arg Gly Cys Thr Gly Pro Gly Arg Val Leu
    690                 695                 700
Ser Cys Pro Ala Thr Thr Leu Leu Asn Gln Leu Lys Lys Thr Phe Gln
705                 710                 715                 720
His Arg Val Arg Gly Lys Tyr Pro Gly Gln Leu Glu Ile Ala Cys Arg
                725                 730                 735
Arg Leu Leu Glu Gln Val Val Ser Cys Gly Gly Leu Leu Pro Gly Ala
            740                 745                 750
Gly Leu Pro Glu Glu Gln Ile Ile Thr Trp Phe Gln Phe His Ser Tyr
        755                 760                 765
Leu Gln Arg Gln Ser Val Ser Asp Leu Glu Lys His Phe Thr Gln Leu
    770                 775                 780
Thr Lys Glu Val Thr Leu Ile Glu Glu Leu His Cys Ala Gly Gln Ala
785                 790                 795                 800
Lys Val Val Arg Lys Leu Gln Gly Lys Arg Leu Gly Gln Leu Gln Pro
                805                 810                 815
Leu Pro Gln Thr Leu Arg Ala Trp Ala Leu Leu Gln Leu Asp Gly Thr
            820                 825                 830
Pro Arg Val Cys Arg Ala Ala Ser Ala Arg Leu Ala Gly Ala Val Arg
        835                 840                 845
Asn Arg Ser Phe Arg Glu Lys Ala Leu Leu Phe Tyr Thr Asn Ala Leu
    850                 855                 860
Ala Glu Asn Asp Ala Arg Leu Gln Gln Ala Ala Cys Leu Ala Leu Lys
865                 870                 875                 880
His Leu Lys Gly Ile Glu Ser Ile Asp Gln Thr Ala Ser Leu Cys Gln
                885                 890                 895
Ser Asp Leu Glu Ala Val Arg Ala Ala Ala Arg Glu Thr Thr Leu Ser
            900                 905                 910
Phe Gly Glu Lys Gly Arg Leu Ala Phe Glu Lys Met Asp Lys Leu Cys
        915                 920                 925
Ser Glu Gln Arg Glu Val Phe Cys Gln Glu Ala Asp Val Glu Ile Thr
    930                 935                 940
Ile Phe
945
```

<210> 3

<211> 2278
<212> DNA
<213> Homo sapiens

<400> 3
aaatcagatg ctctgtgatt aatcgtggag gattcaggac acgaccacaa acgctgccag 60
ataagagtcc cggctgcatt atcagagccc ggcagggcac cggcctccct gcaccagaag 120
gaagactcgg ggcgcagcag gtcctcaagg cgatcttccc agagagcggg accagcggct 180
ggtggccagt gtggatggaa tttgcagagc cctagctcga gtccgggagt cccgggccag 240
atgggagcag acgcttgctg gcggcaatag ggaaagtgag gcagctgcaa ggagggcggc 300
gggactgcac tcgagtgtcc agacctgctc gatggtgacc accatgtcgg tgaggttgcg 360
gttcctgtcc cctggggaca caggggccgt gggggtcgtg ggccggagcg cctccttcgc 420
aggcttcagc agtgcacaga gccggaggat cgcaaagtcc atcaacagga actccgtgag 480
atcgcgaatg cctgcaaaat cctccaagat gtacggcacg ctgcggaagg ggtcggtctg 540
tgcagacccg aagccccagc aggtgaagaa gatcttcgaa gcattgaaaa gaggcctcaa 600
ggagtatctg tgtgtgcagc aggctgagct ggaccacctg tctggacgcc acaaagacac 660
caggaggaat tccaggctgg ctttctatta tgacctggac aagcaaacgc gctgtgtgga 720
aaggcacatt cggaagatgg agtttcacat cagcaaggtg gatgagctgt acgaggacta 780
ctgcatccag tgccgcctgc gcgacggcgc ctccagcatg cagcgggcct tcgcccggtg 840
ccccccgagc cgcgcagccc gagagagcct gcaggagctg ggccgcagcc tgcacgagtg 900
cgccgaggac atgtggctca tcgaggggggc cctggaggtt cacctgggcg agttccacat 960
caggatgaaa ggcttggtgg gctacgcacg cctctgtccc ggagaccact atgaggtgct 1020
catgcgtctg ggccgccagc gttggaagct caagggtcgg atcgagtcag atgacagcca 1080
gacctgggac gaagaggaga aggccttcat ccccacgctg catgagaacc tggacatcaa 1140
ggtgacggag ttgcggggcc tgggctcgct ggctgtgggt gcagtgacgt gtgacatcgc 1200
cgacttcttc acgacgcggc cgcaggtcat cgtggtggac atcacggagt tgggtaccat 1260
caagctgcag ctggaggtgc agtggaaccc gtttgatact gagagcttcc tggtgtcacc 1320
cagccccacg ggcaagtttt ctatgggcag caggaagggc tccttgtaca actggacacc 1380
cccgagcacc cccagcttcc gggagagata ctacctgtct gtcctacagc agccaacaca 1440
gcaggccttg ctgctgggtg gcccaagggc cacctccatc ctcagctacc tgtctgacag 1500
cgacctccgg ggtcccagcc taagaagcca gagtcaggag ctgcctgaga tggactcctt 1560
cagctctgag gacccccgag acacggagac cagcacgtcg gcgtccacct cagatgtggg 1620
cttcctgccc ttgaccttcg gtccccacgc ctccattgaa gaggaggctc gggaggaccc 1680
cctgccccca ggtctcctgc cagagatggc ccacctctct ggaggcccgt ttgcagagca 1740
gcctggctgg aggaacttag gaggggagag ccccagcctg ccacagggct ccctgttcca 1800
cagcggcaca gcctcgagta gccagaacgg ccacgaggaa ggggcaaccg gggacagaga 1860
ggacgggcct ggcgtggccc tcgaggggcc tctgcaggag gtcctggagt tgctgaggcc 1920
cacggactcc acccagcccc agctccggga gctggagtac caggtcctcg gcttccggga 1980
ccggctgaag gtatggccac cccgccccgg gcggtggccc tgctttgctg atggcatgat 2040
gactgggagt cgggggctct ggggccacgc agcctgggcc gacatcctgg cctcacctct 2100
gcgtgacctg ggtgggccgt gtctctctgg gccttggttt cctcatctgg caagcgggga 2160
taacaacagc cctcatgggg ctcaggaaga ttttaagagt tcacagtaga taggctcatg 2220
cacatccagc cagaaactgg ccccatctcg caccttctga cctgggtggg cggggctg 2278

<210> 4
<211> 621
<212> PRT
<213> Homo sapiens

<400> 4
Met Ser Val Arg Leu Arg Phe Leu Ser Pro Gly Asp Thr Gly Ala Val
 1   5   10   15
Gly Val Val Gly Arg Ser Ala Ser Phe Ala Gly Phe Ser Ser Ala Gln
            20   25   30
Ser Arg Arg Ile Ala Lys Ser Ile Asn Arg Asn Ser Val Arg Ser Arg
        35   40   45
Met Pro Ala Lys Ser Ser Lys Met Tyr Gly Thr Leu Arg Lys Gly Ser

```
    50                  55                  60
Val Cys Ala Asp Pro Lys Pro Gln Gln Val Lys Lys Ile Phe Glu Ala
65                  70                  75                  80
Leu Lys Arg Gly Leu Lys Glu Tyr Leu Cys Val Gln Gln Ala Glu Leu
                85                  90                  95
Asp His Leu Ser Gly Arg His Lys Asp Thr Arg Arg Asn Ser Arg Leu
            100                 105                 110
Ala Phe Tyr Tyr Asp Leu Asp Lys Gln Thr Arg Cys Val Glu Arg His
        115                 120                 125
Ile Arg Lys Met Glu Phe His Ile Ser Lys Val Asp Glu Leu Tyr Glu
    130                 135                 140
Asp Tyr Cys Ile Gln Cys Arg Leu Arg Asp Gly Ala Ser Ser Met Gln
145                 150                 155                 160
Arg Ala Phe Ala Arg Cys Pro Pro Ser Arg Ala Ala Arg Glu Ser Leu
                165                 170                 175
Gln Glu Leu Gly Arg Ser Leu His Glu Cys Ala Glu Asp Met Trp Leu
            180                 185                 190
Ile Glu Gly Ala Leu Glu Val His Leu Gly Glu Phe His Ile Arg Met
        195                 200                 205
Lys Gly Leu Val Gly Tyr Ala Arg Leu Cys Pro Gly Asp His Tyr Glu
    210                 215                 220
Val Leu Met Arg Leu Gly Arg Gln Arg Trp Lys Leu Lys Gly Arg Ile
225                 230                 235                 240
Glu Ser Asp Asp Ser Gln Thr Trp Asp Glu Glu Glu Lys Ala Phe Ile
                245                 250                 255
Pro Thr Leu His Glu Asn Leu Asp Ile Lys Val Thr Glu Leu Arg Gly
            260                 265                 270
Leu Gly Ser Leu Ala Val Gly Ala Val Thr Cys Asp Ile Ala Asp Phe
        275                 280                 285
Phe Thr Thr Arg Pro Gln Val Ile Val Val Asp Ile Thr Glu Leu Gly
    290                 295                 300
Thr Ile Lys Leu Gln Leu Glu Val Gln Trp Asn Pro Phe Asp Thr Glu
305                 310                 315                 320
Ser Phe Leu Val Ser Pro Ser Pro Thr Gly Lys Phe Ser Met Gly Ser
                325                 330                 335
Arg Lys Gly Ser Leu Tyr Asn Trp Thr Pro Pro Ser Thr Pro Ser Phe
            340                 345                 350
Arg Glu Arg Tyr Tyr Leu Ser Val Leu Gln Gln Pro Thr Gln Gln Ala
        355                 360                 365
Leu Leu Leu Gly Gly Pro Arg Ala Thr Ser Ile Leu Ser Tyr Leu Ser
    370                 375                 380
Asp Ser Asp Leu Arg Gly Pro Ser Leu Arg Ser Gln Ser Gln Glu Leu
385                 390                 395                 400
Pro Glu Met Asp Ser Phe Ser Ser Glu Asp Pro Arg Asp Thr Glu Thr
                405                 410                 415
Ser Thr Ser Ala Ser Thr Ser Asp Val Gly Phe Leu Pro Leu Thr Phe
            420                 425                 430
Gly Pro His Ala Ser Ile Glu Glu Glu Ala Arg Glu Asp Pro Leu Pro
        435                 440                 445
Pro Gly Leu Leu Pro Glu Met Ala His Leu Ser Gly Gly Pro Phe Ala
    450                 455                 460
Glu Gln Pro Gly Trp Arg Asn Leu Gly Gly Glu Ser Pro Ser Leu Pro
465                 470                 475                 480
Gln Gly Ser Leu Phe His Ser Gly Thr Ala Ser Ser Ser Gln Asn Gly
                485                 490                 495
His Glu Glu Gly Ala Thr Gly Asp Arg Glu Asp Gly Pro Gly Val Ala
            500                 505                 510
```

```
Leu Glu Gly Pro Leu Gln Glu Val Leu Glu Leu Leu Arg Pro Thr Asp
        515                 520                 525
Ser Thr Gln Pro Gln Leu Arg Glu Leu Glu Tyr Gln Val Leu Gly Phe
    530                 535                 540
Arg Asp Arg Leu Lys Val Trp Pro Pro Arg Pro Gly Arg Trp Pro Cys
545                 550                 555                 560
Phe Ala Asp Gly Met Met Thr Gly Ser Arg Gly Leu Trp Gly His Ala
                565                 570                 575
Ala Trp Ala Asp Ile Leu Ala Ser Pro Leu Arg Asp Leu Gly Gly Pro
            580                 585                 590
Cys Leu Ser Gly Pro Trp Phe Pro His Leu Ala Ser Gly Asp Asn Asn
        595                 600                 605
Ser Pro His Gly Ala Gln Glu Asp Phe Lys Ser Ser Gln
    610                 615                 620
```

<210> 5
<211> 828
<212> DNA
<213> Homo sapiens

<400> 5
ggagaggaag ccagatgctc ccagacactg gggactgtcc tgggcctccg tccccaaggt 60
gtggctggag gaagcagagt ctactcccgc taagtctgtc cgctcactgc tggccaaagc 120
tgccctgcgt ctcctcccca ccgccagcca gagggaacct gcaatttcac ctcatttaga 180
gcatccggag cccaggactg ctcagtcaac cctctggaat gcccacaact ccccacaggc 240
cagccggcct tgggactccc gcacagccac gtgagccggt ggagccgggt ctgtttgcta 300
gtggaggctg ttaacagcac gggaagtggt caagggttca acaagagatg agccatctgg 360
tcctccagag gttgtgactt caatataccc tctcatgaga cctttcctgg ccccttatct 420
gtggaggagg cacgtgaccc acatggtctg gccactgatg actgaacaag ctatggacac 480
cggaccccgg agagaccatt cactcactgg ccacgaacat gagttcagat acatgcccca 540
aaaggatgag cctgggtact ggattccctc cctcagaaac gtgaatcaag agacacagga 600
tgttcctgtt ggtccagata cttgagctaa aaggtgatgg atacctggat gtggggtggt 660
cattctgggg agtacgtcca tatagaaaga ggagcaggtg ctgtgggatt ctggatccca 720
gtgatagagc taagtggctg gatcaagctt cacctgaaac ccactctact tgtcttagtc 780
cattttgtgt tgctataaaa gaatacctgc aactgggtaa tgtataaa 828

<210> 6
<211> 597
<212> DNA
<213> Homo sapiens

<400> 6
catccggagc ccaggactgc tcagtcaacc ctctggaatg cccacaactc cccacaggcc 60
agccggcctt gggactcccg cacagccacg tgagccggtg gagccgggtc tgtttgctag 120
tggaggctgt taacagcacg ggaagtggtc aagggttcaa caagagatga gccatctggt 180
cctccagagg tggaggaggc acgtgaccca catggtctgg ccactgatga ctgaacaagc 240
tatggacacc ggaccccgga gagaccattc actcactggc cacgaacatg agttcagata 300
catgccccaa aaggatgagc ctgggtactg gattccctcc ctcagaaacg tgaatcaaga 360
gacacaggat gttcctgttg gtccagatac ttgagctaaa aggtgatgga tacctggatg 420
tggggtggtc attctgggga gtacgtccat atagaaagag gagcaggtgc tgtgggattc 480
tggatcccag tgatagagct aagtggctgg atcaagcttc acctgaaacc cactctactt 540
gtcttagtcc attttgtgtt gctataaaag aatacctgca actgggtaat gtataaa 597

<210> 7
<211> 32
<212> PRT
<213> Homo sapiens

<220>
<223> Examplary motif

<221> VARIANT
<222> 2-8, 10-15, 17-22, 24-31

<223> Xaa = Any Amino Acid

<400> 7
Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Leu
 1   5   10   15
Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu
            20   25   30

<210> 8
<211> 106707
<212> DNA
<213> Homo sapiens

<400> 8
gcctgaggcc accctccaag tgtccccaca gcgcaccaca agaccacagg agtgacctcc 60
tcactggcag gtatttgggg aaacaactgc tgtctactct tttgggtaaa aagtgaaaca 120
ccaatagttt aattgaaatt tcagaaaatt gaacatatga acaaggcaaa taaatactaa 180
gtaagttaaa aacacaaaat atgtccagga agtatcgatg agaatgttca agttaaagtt 240
ctccaatgcc attgctacag caacctcaaa ccctaggttc tctctgcact attaacacag 300
acatctcagg acatggtttg ctttttttta agacttaaat aggaaactaa ttttttctttc 360
tttaaagcaa ttgcgttctt cagtgaactc tttctttagg ccagttgatg gcttcttagc 420
agtttattga cgagatccta gggtagcttc cgaagctggg ttgattgatt gcatttgggt 480
gcggatggcc aaagtgagtg gccctactgc ctgtgctgct cagggctcct gggctgatgt 540
ggtggcttct tccctttgtg ctgctgaaca tagggaaagt gaggttcaca gtccaccatc 600
caccagccgc cgtctgtgag ctccaccagc actcgcagca agtcagtcgg gctgagagtg 660
tggttgtaga aaccctggct ttgtgccttc ccaccttccc cagctcacca aggtgacacc 720
tggctgctgc tgaaatggcc tgagcagtct tgcattagca gggccagcca cctgccagcc 780
tgctgcatcc ccagtgcctc ttgacgcaga agtgccgagc agctgaccgg cagcgaggcc 840
tggagttcta cacacttgcc ttggagcctt ttatttaggg cctcaacttg cctggccttg 900
gccctttttgt aggtggccac ctagtttggc tcagctctgc atctcgggga aggtcacaca 960
gaccctcagc cagaagttga gcgctctgtt gaggccgtgc agcccctgga atgctgtacc 1020
tttgccttgc ttttttctgc ctctgtacaa aagaccagcc catgccctgg ggctgggtca 1080
atggccggag tctcaggtag agctctgggc agctcacact cctggaggag tgcacagcac 1140
cattacccag agtgcaggct atgtccaggc tgggcagcag caaaaaaaac gatgtgagat 1200
ttgtgctcat cagccaggat tttttaaaat attgtgattt caacatctgc ctcctggcaa 1260
aagacttctc tttgttctga gcagagcttg tccatcttct caaaagctaa ccgtcctttt 1320
tcacctgaaa tagcaaaggg acctgtcagc gggttggatc ctgccttggc acttccaact 1380
ctcctgggcc agggtggccc tagtgcttag tgactgtggg tctcagtggt ctctgcaaag 1440
cggcagggga gggagtatgt gcgggagccc ccacctggtg actcacatgg cctgggggcc 1500
ttgtctttac ctctaggatg ttccgctgaa tgggaaccct gccttgcctc tggcttctat 1560
cccaaaggtc taagaagaca gcgaacactc cctgccaccc cagccatgga ggaggcctgc 1620
cttggcagga tgctacaaag ggtggaggtc ggctctgtgc cagggctgct aacggtgccc 1680
atcccaggtg ccccagagtt gttctgcctg ctgggagagc tgggtgtggc ctctcgcaga 1740
ttctaagggc cccaggcacc ccgctgcgct gcacagtttg tgccactttt taccgaacga 1800
cagtgtggtt tcccgggctg ccgcccgcac ggcctccagg tcagactggc acaggctggc 1860
agtctggtcg atgctttcaa tgccctgttc gagattagga gaaaaagaac cctttagggg 1920
gccttctcaa cagcaggtag agtccactta gtggccctgc agggccagtc ctagcatggt 1980
ctctggggcc tcagcccctt ccttttctcc aggcttccag gtttttttagg tggcctcagg 2040
ttcatgagag gcacctctgg actctggaag cgtctcgcct cttcagccct tacacccgct 2100
agggagccag gctgttagca gaactcgtca tcctggatgc ctgctgaaag gctagaattg 2160

```
aaaaggagac ctgctgcttt ctggaccttc ctgcctccct cacgctctcc ttgccctact    2220
ctccaggaca gcctgtgcca gtacttcgcc caactcaggc acatgccccc tggctgctcc    2280
tgcaggccaa ggaccggcat gcgctgcagc gccctctact gggcacctgg ccctcgctgg    2340
ttttctgatc ctaaccagct tctcctctta gaatttcctg ctgatccatc ccagaatgaa    2400
tgggagttca atctgtactg aattatcttt catctagcaa ttgtgcaatt ccaaatgcag    2460
gtgaggttga gggaaagcgg gcatcccctc acatccatgg gatctatgtg tgggttgtat    2520
caagagtctc aaaaatgctc atattctccg gtcctagaat tgggtctagc ctaaggaaat    2580
aattcagaac tccatgtttt tttaaagctt tatgcacaaa catgatcata agacatgatt    2640
tatgataaaa attggatgaa gtaaactttc ctatgaaagc agctgagtag gttaaattaa    2700
ggtatacact tgatagcccc ttcataaaga attctcaagt gaaaaaaaaa aaaaaaaaaa    2760
gaaaaaaaac accacaaata aagaattcta ggccgggcgc ggtggctcat gcctgtaatc    2820
ccagcacttt gggaggccga ggcgggcaga tcacgaggtc aggagatcga gaccatcctg    2880
gctaacacag gtaaaacccc atctctacta aaaatacaaa aaaattagcc gggcgtggtg    2940
gtgggcgcct gtagtcccag ttgctgggga ggctgaggca ggagaatggt gtgaacccag    3000
aaggcagagc ttgcagtgag ccgagatcgc gccactgcac tccagcctgg gtgacagaac    3060
aagactccat ctcaagaaaa aaaaaaaaaa aaaaaaaaaa aaaaagctaa agtgctgcca    3120
gtctaacaca aaatgttctt attttgttga ctgtttttaa actatgtttg gatcaacaat    3180
tttaaatgct cacacacacc cacaaacttt taaaagaagc ataccagaat gtcaaccatt    3240
gtttctgcta cattctagga tgatggataa ctttcttttc tatctctgta ttttgtaact    3300
ttttttttt ttttttaag atggagtctt gctctgtcac ccaggctgca gtgcagtggc    3360
acgatctcgg ctcactgcaa cctccacctc ccgggttcaa gtcccgagta gctgggacta    3420
caggcatgtg ccaccacgcc tagctaattt tgtgtgtgtg tattattagt agagatggag    3480
tttcgccatg ttggccaggc tggtttcaaa ctcctgacct caggtgatct gcctgccttg    3540
gcctcccaaa gtgctgagat tacaggcgtg agccatcacg cccagcccca gtggaatcat    3600
tttgaagtta actaacctta accctaacca caagcaggct tttctatcag ccactaatgg    3660
ggaaacgtca ggctcacctt gaggtgtttg agcgctaggc atgcggcctg ctggagcctt    3720
gcgtcgttct ctgccagggc gttggtgtag aacagcaaag cctggggaga gtaaggaggc    3780
tgtgaatgga ggggtaagca gaagtggagt ccatggttcc gggtccatca gccaccaggt    3840
gccgacagta aggcacgctg tgcccatctt tctctaaaca acgttcagga cacgatcggt    3900
ccatctttgg gccctgtgta cacagtcaca agatctatac tgtggtgttt aatttatccc    3960
taaaaacaga tgccagggct aatacaatga agaaagctat ttttgtctaa taatattccg    4020
gaagtgcatt ctgaaactgc tgtctataaa atgctgaatc agagaaatca gatgcccagc    4080
tcagaacaac agaagaactg atcatcccat gtgcgttgcc ctcttcagct gaaaacgggc    4140
aaggctgctg ccttgggcca gagggaaacc tgcctattcc cctcagccct cctgtccaat    4200
cccagcggtg accctgccct cttcggtctc acgaccatgg ccacatcagt tcatgtcttt    4260
gggcctaact tgactcagct gaaaacaaag ctggcacttg cttcatgtgt tattgtaggg    4320
tttgtcagaa agcacacagg gttatgcccg gcccgcagtg gagtccagcg tctgcggctg    4380
caaagggaaa cccaggagtg ggtttgccct cactcagtcg agtggctgca ccttcaactg    4440
cacgggtggg gcgatggagg ggcccaggtg tagagttggc tccagggacc tgggcccaga    4500
gccaaaagag aatggccgcc tttccatctg caggtggctc tccaaagtgt ctgctgcttt    4560
gggaagacag actgggagta ggatcgggtc ctcccgctcc tcctacacag ggctctggtg    4620
aaggctgtga ggccacatcg gtgtggaaat gtcacactgc ccactgcctc taaccccagg    4680
gtcccaggtc atggcagcct actccttcct cagcaccctc atctgaggcc aagcaatctg    4740
tcactgggtt ggcccccacc tcagtgtttc ctactctcta aagtctgtca catgaagatg    4800
aaggcccttt ttttttttt ttttgagaca gagtctcact tcgttgccca gcctggggtg    4860
cagtagcaca atctcggctc cctgcagcct ctgcttccca tggaggcctt gtttatatac    4920
ccccataccc aaaaaacaaa atacacctga cttcagtgga tccttgaagc caactactag    4980
ttttcaggaa ctacagaaga cagagaaata cattaaacta ccgttaaact tcctgcaagc    5040
agcaaagtct agatagtcta ggtcaacctg ggatcgatca aattaattgc aagcagagaa    5100
agaaacgggg aaaaaaacct ttagattgat tggaagccat cagccaatca caatgtgtgt    5160
ccttatgtag atactatttt aacaaaaaat aaaacaggat gcttgaggct tggaaatttg    5220
aacataagat atatgatata aaggaattga tagttaattt tttagataag ataatggtgt    5280
tagagttgtg atttttgaaa gaattcttaa ccttttgaca catatagtta actatttaag    5340
gtcaaatagg atgcctcagg ttgcttcaaa gtgatacagg ggagtggagg ggaaaggggc    5400
aggattggcc atgggttgat ggtggttggg cttgggttat gggtgcaggt ggattcatta    5460
tattgctctg tctacttttg caagttcaaa agtctccaaa taaagagtta aaaacaacca    5520
caaagtaggc ggatgggctc caagaagggc tattggcaat ggaactggag atttcctctc    5580
```

```
tagtctggag ctgagaccat cagtgtagac tatgcccttg atgtcaccct tcctgaaccc    5640
ctcagggtgt ggcgccttaa acgtacagta gttacaggca aagagtgaaa aagcagagag    5700
gtccactctc ttggttttca aatggactga acacagtgac ccattaccag gtagccatga    5760
atattaattg aaagtaaata aggatgacta tcaaaacact aagaaaggct gggcgcagtg    5820
gctcacgcct gtaatcccag cactttggga agccaaggca ggcggatcgc agggtcagga    5880
gtttgagacc agcctggcca acatggtgaa accctgtatc tactaaaatt acaaaaatta    5940
gctgggtatg gtggtgggcg cctgtaatcc cagctactca ggaggctgag gcaggagaat    6000
tgcttgaacc caggaggtgg aggttgcaag atcgtggcac tggactccag cctgggcaac    6060
agagcagaac tctgtctaaa cagacagaca aaaaacgcac taagaaaaac attcagcgtg    6120
caagtgacat ctcagaggcc taacagatgt gttgctttgg aagcagcaag gtgcattcat    6180
gtgtgttaga tcgtagccca ggtccctcca tcaaaatagc tcacagctac tgcagcccct    6240
ggcactcact tctttgtact tttccatgag aacaccagct tacctatgcc cacacatctg    6300
tggccagggt ctgccacctg ccctggacaa cgtacctttt cccggaagct tctgttcctg    6360
actgcaccag ccaggcgagc gctggccgcc ctgcacaccc tcggagtgcc gtccagctgg    6420
agcagcgccc aggctcttaa ggtctggggc agaggctgga gctggcccag ccgcttcccc    6480
tgcagcttcc ggaccacctt ggcctgtccc gcacagtgaa gctcctcgat gagtgtcact    6540
agaagacagg aaagaggtgg gcccaggtcc cctgaatggg agtttggcag gacagctgca    6600
agtttgcttg gctgctgcca gtagccacag aggaacaaat cccagaccca ccgggatgat    6660
caccaaggcc cagcctggac taatttcaca gggagctcct ggaatctcca ggaaggcctt    6720
ttaacaaggg gtcaaatatg ctccataaat taataaaacc acagcccaca cttccaggga    6780
ctctggccag ccaagatcac cctcctaccc agctctgacc tctgttccgt gctttttaaa    6840
gctgacttcc cttggagcta atatcagccc ccatcggctg aacgcagaat ctcattaaat    6900
cggggttccc aaaagaacag ttggcgggga tggatgtagt ggttctgaat tataacctga    6960
gaaactgcat gtgacagggc tccgtggata ttcctctgct atgacagcca cccaccccag    7020
tcttaccttc cttggtgagc tgggtgaagt gcttctccag gtcagagacg ctctgcctct    7080
gcaggtagct gtgaaactgg aaccaggtaa tgatctgttc ttctgggagc ccagctccgg    7140
ggagcagccc accacagctg accacctgct ccaggagcct gcggcacgct ggccaaaggg    7200
gagagtacat caggagaaac tgagacctcg accctccacg cttctcagct gggagtagcc    7260
tggtcagcta aaaggctttc tgggccgggc gcagtggctc gcacctgtaa ccccagcact    7320
ttgggaggcc aaggtgggca gatcacctga ggtcaggagt tcgagaccag cctgaccaac    7380
atggtgaaac cccatctcta ctaaaaatac aaaattagct gggtgtggtg gtgcctgcct    7440
gtttcccagc aactctggag gctgaggcag gagaatcgct tgaacccggg aggtggaggt    7500
tgtagtgagc caagattgcg ccactgcatt ccagtctggg caaccatgag tgaaacccca    7560
tctcaaaaaa aaaaagggtt tctgatggca cgagggcagg tgtccctcac tgcattccct    7620
gtgctgtagg ggaggagtgt gcccagctag agtcaggact gtgactccaa ctcaccctga    7680
gtcagaccgt gttgggttca tccccatgcc ctgggcccca caccacacct ggatcaaaat    7740
cccggaggca gggcctggga atatgcatgt caacaagcag tccaggtggt gcttggaaca    7800
tgactgtcac ctttcacttg ctccacagag aaaggcaaat tctggggaag aacgcagtcc    7860
agccagcatt tctagatacc ctcgtgggcc cctgcctgcc tcccttccca taaggttcat    7920
tctttacccg tcaggctctg gtgggaggca tggaatctgt ccccagaaaa atgctctggc    7980
ggccgggcgc agtggctcat gcctgtaatc ccagcacttt gggaggccga ggcgggcgaa    8040
tcacaaggtc aggagttcga gaccagcctg gccaatatgg cgaaaccccg tctctactaa    8100
aaatacaaaa aaagaaaatt agccaagcgt ggtggtgcac acctgtaatc ccagctactc    8160
gggaggctga ggcagaagaa tcgcttgaac ccgggaggta gaggttgcag tgagccatga    8220
ttgtgccaca gcactatagc ctgggcgaca gagtgagact ccatctcaaa aaaaaaaaaa    8280
aaaaaaaatg caccggccca ccaagtttgc acgcagcttc agggctccac agactgctca    8340
gaaggcccca cgtggaggcc ccttctcgcc cggtgaaagg gcggtgactc gcactgaagc    8400
tgagaaagct cctccgtccg atggcatgaa gacacagagg tgaagacagg gctgaaatga    8460
ggccagctgt ggccaccctg aaggccctgg agactcaata cagcctttct gtgggagggg    8520
acgacaggac agaagggaac ccacctattt ccagctgtcc tgggtacttc cctctgactc    8580
tgtgctggaa ggttttcttg agctggttca gcagcgtcgt ggcagggcag gacaggaccc    8640
tgccaggccc tgtgcaccct ctccacagct tcaggcaccc cttcgtccgc gaggcctgtg    8700
ggatgactga aagccccagt tcagaaacct gaatggtgac tcggggagag cacatgacaa    8760
ggacccgaaa ggtttccctc cactaggacc tgaggggtga gggaggaggg gacggtgtgg    8820
cttgatgcga ggtcccttcc ctgcattccc atgtgacacg tgagcaactt tggctctaag    8880
catcttacca gggccaccac ctgcagtccc cacaacaacc tgggaggggc tgctgtcacc    8940
agcctctcct tacagacaag gaacctggcc ttctgagggg aggtcccacg gggcagaggc    9000
```

acagctggga tcacagctac tgtttgacgg cacattctgc accttgaatg tggcctgggg 9060
ttacctcact gaaccccgtg cagtgccctc ctcctatgca gatagggaag cagaggctca 9120
gagatgtgaa tcatttgcct agagtcacac agctgactga agagtgtgct gcaactccag 9180
gacttgtctc ccttacctcc ccacaaagag tgtgtatctc tgagcccagc ccagccacag 9240
cctccactct gggccccgat taactctggc tattaggaag gcagaagagg ctccccgagc 9300
tttgatcccg tccccgtgcc gctcacatag gcagcccctg ggtggcaggc agctacttac 9360
tctcttcaat ggatgttgcc ttgccgacct tctcaaagtc aaggacagaa agtgtctcca 9420
gaacgtgctt ttgctgtgcc acttcttcca ggaggcattc ctggaccagc cttgataaat 9480
taggggaggc cagtttctgg gaagcagccc agatgctcca gattagcatg gaacatgccc 9540
accgaggtca gctgttacgg ctgtggctcc cacctgcttg tgcccatctc ttctgtcccg 9600
ggggcagctc cctgactgtc atttggggat tccccctttca ccaaggtggc tgagctaatg 9660
ggatgcaggc tgggctgcca gggaccacct ttgcccccag aaggaggacc aacctgcctg 9720
aaagtgaagc caacccacat tgcaaagcag aactgagaga gacctagtcc tgatagcatt 9780
tgaacccgtg catccagccg agcctgaagc ctacctctga ggctttcagt accatgagcc 9840
gataaatttt cctgttggct gagccagttt gcattagggt tctggcacct ataaatgaga 9900
gtcaccacca aagcctttgg tttagggctt ggcctgtgta agagccacac gagtattcac 9960
ccagaccctg gtctgcctct cttccactgg ggaatagctt cagtctcacg ggcttccagg 10020
atgcaggtct gtcacccctt catgcttccc accaccttca agatgagcct ttgcaaagag 10080
gactccaaac ccctgtctgc ccctccctga caagtcccct agcccagcca cctgcagcag 10140
agctttgcag acttggaggt gtaccatcag cagcacgtcc agctctgggg caccggctgt 10200
gagttccctg gatgacgctt tcagtgatga cggtgggggc aggggccggt cctttctgag 10260
ttgaattgag aactgggtga ccattccagt tagcagttca gctccctctg agggtggggg 10320
aaccctccct tcccagcgag ccccaggtca ggaggcccac tccaggtccc aggaagttca 10380
actgaagagg aaggggaaag gaacaaaggg tggcagcaac tcgaaacaga gctgggaggt 10440
gtggccaagg gcctggggaa ggcagggcgg gcagtcgtct tccaggatgt ctcgtggagg 10500
tagaagagaa ttccaactca tcccagctct gtgacgctgg acaagtctgc ctccccaagg 10560
ctcaggtgac tcatctatca agggaggcag gagccccaca ctcaaggccg tgaggggtgc 10620
atgaaatacg gtgggcaaga gcgcctcaca ccaagtccac tctgtggtag aggctagacc 10680
tgctgcccga cccactcagc cactcaggaa gggtggaagc aagtgtggca cgaaacaccg 10740
cactcgtccg tgggattgtg agaggcgagg agaaggaatt gagcctctgc tcttccatgt 10800
ggtgagatgc ggatgcagaa gccctcgggg gctggggcag gtgaggctgc gtagcctcga 10860
gggaagctgt catgagaggt gtgggccctg tggtgggaca gagggaacag cactggatac 10920
tgctgcacct tggttagggg ctaagagctt ttttttctt tttctttttc ttttttgag 10980
acagagtctt actttcgccc aggctgaaat gtagtggtgc catcttggct cactgcaacc 11040
tccgcctccc gggtccgagt gattctcctg cctcagcctc ctgagtagct gagattacag 11100
gctcttgcca ccatgcccag ctaatttttg tatttttagt agagacgggg tttcatcatg 11160
ttggccaggc tggtcttgaa ctcctgacct caggtaatcc gcctgcctcg gcctcccaaa 11220
gtgttgggat tacaggcgtg agccactgtg cctggcctca aagaacttct actatatact 11280
tggtgattat ttttaaggtt taaaaaataa tactaaaagc tggttccttg gagcagaagg 11340
ctcaggggca ggctggggtg atctcaccca cttcgtggtc tctgaggacc ggctctgagg 11400
caagtggggg atgtgcgggg atggcatggg gaagggtgca cgatagagtg acaagagctg 11460
agccaaggac agtgggagaa acagacgggg aggctggcag gaaacgtgga gctcgggtca 11520
cccggtggga gtggtggcca ctgggtcact gctggaagga ggtgcactca ccggagaccc 11580
tgggagcccc caaacaggga cagctcatcc agggcgaagt cggcattgag gaaggcgaag 11640
ctctccagga tgcactccat caggctctcg gccgaggtgt gctcctgccg tgctctgcag 11700
ggctgtggac gaagtggcca gacctgaggg caacaccggg ccccacccac ccgactggga 11760
cactggccag gggcctcacg gcagacttgg gcaatgtccc ggtcccaagc cccaatccca 11820
cacaccgtcc cccagcagaa gcccagccgc tggcccaagg cgtggcactg ggcgtgtcac 11880
cccccaaagt ccctcctgaa tggcctgtga caaggtagga gcagaatctt gaggggggaca 11940
gatctgaaaa ccctcccctg tatctcagac acccacgggg acaaggccaa tggcaggagt 12000
gagtgagctg ccccagcggg gaccagggag gcaggagcgc aggtgcctcc cctaagaggg 12060
ggccacgctc atagatcgcc cagttctaag aaaaccctaa aacatggata tttatgggaa 12120
actgcccagc tttgaaatac caacaacaaa tttcaaagta ttttaaatac atggtgtagg 12180
tcaggcaaac gcttcttcac gaggctcaga ggcctgtggg ctccaggttc ctcctccctg 12240
ttgggtttct ctccccaaca gattaaggga gagtgttggg gccaccaacc cgccactggt 12300
caagtcacca gagcctccag tgccagctcc ctccctggag atttctgtct tgtccccaac 12360
tcgtggctgg ctctggggct ggttcctgcc cccgttccca gcacacccca cccaggcctt 12420

gtgtccaaca caaactgcag ccaaggcaca gcccaagcag aagccataaa accaaaccag 12480
gatcctaact gcggagccaa agagaaaatc ttgaggacga agggaataac aaggctagtt 12540
gcagagatca cattttccaa tacaaaaata taggcataca tgtgtatgta agtgtgtatc 12600
aatacacaca tgcatgtaga ctgctgattc tcaatagtca aggtagttat gttctagagg 12660
ccaaggcggg cagatcactt gaggtcagga gttcaagacc agcctggcca acatgatgaa 12720
actgcatctc tactaaaaat acaaaaatta gccgggtgtg gtggcacaga cctgtagcct 12780
cagctactca ggaggctgag gcaggagaat tgcttgaccc ggggaggcgg aggttgcagt 12840
gagccaagat tgcaccactg cgctccagcc tgagcgacag agcaagactc catctcagaa 12900
aaaaaaaaaa aaaggagggg gttatgttct ataaaatcac agcaaaaaaa ctgaatcagc 12960
aaaagctgaa ccattgctcc taagggagtt actgggttag gttcctgtga acctctggtc 13020
acagcagttt tatcaactca gcaatgcaga actttgtatg tgtcttttgg tttaaagaca 13080
ccttatttaa tagctattgt tggctgggtg tggtggctca cacctgtaat cccagcactc 13140
tgggaggccg aggcaggtgg atcacctgat gtccggagtt caagaccagc ctagccaaca 13200
tagtgaaacc ctgtctctac taaaaataca aaaattagcc gggcatgatg gtacgtgcct 13260
gtaaccccag gtactaggga ggctgaggca agagaatcac ttgaacccag gaggtggagg 13320
ttgcagtaag ctgagatcgt gccactgcac tccagcctgg acaacagagt gagactccgt 13380
ctccaaaaaa aaaggaaaaa aaaaagctat ttttgattca ttaacattga actcaacagc 13440
cagcatcgct acaactcatg cctgaaggaa gctcatctaa cacacatttt ctctgtaagg 13500
tatttcacag gcttcctgga ctgaggaaca ccagccggca ctgaagctct gggcttggga 13560
ggcatttaaa cagtgaaact gtcaacaaaa agcacaaaaa cttgaaaaac atggcattaa 13620
atagaccatg aggacacttg tttaccattt gggcattgaa acaggaaggc aaagcattgc 13680
ctcgcttgac ctcagctggg aatgtgtgct ttgagcagct cagattttct atcactctgc 13740
ccggccccaa aacccacttt ggaatcgcct cgagtattga tttgggggtt agaaataaat 13800
tttagcaagt aagtaaattc caaaatgcag aatccacaaa taatgaggat aaatcatgta 13860
tatgtatgtg tgtatgtatg cgctcacaca cacacttttt tttcttttga gagagagagt 13920
ctcgctctgt tgcccaggct ggagtgcatt ggtgcgatct tggctcactg taacctccgc 13980
ctcccgggtt caagtgattc tcctgcctca gcctcccaag tagctgggac tacaggtgca 14040
cgctaccatg ctcagctaat tcttttgtct ttttagtaga aacggggttt tgccatgttg 14100
gccaggctgc tgttgaactc gtagcctcaa gcaatccacc tgccttggcc tcccaaagtg 14160
ctgggattac agatgtgagc cactgcgccc accatcatat acacatagat ttgcataaat 14220
gtgtgtgtgt gtaatttctc tccagaaagt caaaccaaaa accacggtct gtaatcaatt 14280
tgcattgttc tgacttcgtt tgccaaaaaa agaaaagttc cttaaagacg tttaaaatga 14340
ttacattatt gcggcattaa catttttatg taaattgggt gtaatttttc aaaatacaag 14400
tatgtgacaa atgtgcatgc cgactcaaat tagtctacaa aaaaaggctg ttaaaaagta 14460
caaaaaaggt acaggcacga tggctcacgc ctgtaatccc aacgcttcgg gaggctgagg 14520
cacgaggatt gcatgagtcc aggagtttga gaccagcctg ggcaacaaag tgagaactcg 14580
tctctataaa aaataaacaa aattagccag gcatggtgat gtgtgcctgt agcctcaact 14640
agtcaggagg ctgaggggggg aggatcgtgt gatcccagga ggcagaggtt gcagtgagcc 14700
aagattgcac cactgaactc cagcctgggc aacagagtga gaccctgtct ccagaaaaat 14760
gaaaaacatg aagtaccaaa aagttgacat tatttcttaa attttttttct ggaaatttttc 14820
aggcaggtcc tttttaacaa ccatagtagt ggtaaacgga acatatttta aagttatgga 14880
tgtaaaatga gaaattaaac tttttttccc ctatgttgat ttgtcctgtt ggaggtgtgg 14940
ttggcgataa aatgtgtttg aagagagctg ttaactattt cagtgccaaa gtgtatctta 15000
cacaaaagag gggaaaacag aaaacagcaa aatcagagaa gtgcacagcc agtctgaggg 15060
cataaggacc gagggaacac agagcaggaa gggatgggcc tgccggggcc aggtgggagt 15120
tgccatttaa aagagggtgt ccaggccagg tgcagtggct cacgcctgta atcccggcac 15180
tttgggaggc tgaggcaggc ggatcacttg aggtcaggag tttgagacca gcctggccaa 15240
catggcgaaa ccccatctct actaaaaata caaaaattag ccaggcgtgg tggtgtgcac 15300
ctgtaatccc agctactcgg gacgctgagg caggagaaat gcttgaacct gggaggagga 15360
ggttgcagtg agccgagatg gcgccgctac aactctgttg ccagcctggg caacagagcg 15420
agacttcatc tcaaaaaata aatacataaa aaataaaaga gcgtgttcag ggaaggacac 15480
ccttaagtta attgatgtat tagtaggtac tagtggtata catttttttg atgtacattc 15540
aaatttgtgt aaacacgaga ggagaatgta ataatttgcc taggtcagca cctctgaaag 15600
ccacctgcca cctaagccct cctgtgaact gagaacagcc ccggggtatg agccctgtgg 15660
agaaggttca gtgcggggtg cgtggatgag gcaaacaggg aactgtgtgg ggccttccat 15720
ggagccagct gcgaccctga caacactcca agtttgggtt tgtagccaca agccacagcc 15780
ccgcccaccc aggtcagaag gtgcgagatg gggccagttt ctggctggat gtgcatgagc 15840

ctatctactg tgaactctta aaatcttcct gagccccatg agggctgttg ttatccccgc 15900
ttgccagatg aggaaaccaa ggcccagaga gacacggccc acccaggtca cgcagaggtg 15960
aggccaggat gtcggcccag gctgcgtggc cccagagccc ccgactccca gtcatcatgc 16020
catcagcaaa gcagggccac cgcccggggc ggggtggcca taccttcagc cggtcccgga 16080
agccgaggac ctggtactcc agctcccgga gctggggctg ggtggagtcc gtgggcctca 16140
gcaactccag gacctcctgc agaggcccct cgagggccac gccaggcccg tcctctctgt 16200
ccccggttgc cccttcctcg tggccgttct ggctactcga ggctgtgccg ctgtggaaca 16260
gggagccctg tggcaggctg gggctctccc ctcctaagtt cctccagcca ggctgctctg 16320
caaacgggcc tccagagagg tgggccatct ctggcaggag acctgggggc aggggtcct 16380
cccgagcctc ctcttcaatg gaggcgtggg gaccgaaggt caagggcagg aagcccacat 16440
ctgaggtgga cgccgacgtg ctggtctccg tgtctcgggg gtcctcagag ctgaaggagt 16500
ccatctcagg cagctcctga ctctggcttc ttaggctggg accccggagg tcgctgtcag 16560
acaggtagct gaggatggag gtggcccttg ggccacccag cagcaaggcc tgctgtgttg 16620
gctgctgtag gacagactgg agaggggaca cgggagcggc ctcaccagcc accccaggga 16680
ccacagcaag tcccccagag gggcttcccc tgacagacac ccgctgtgca tgcccatgtt 16740
ctcaggatga ctgaggcctg ccgaggtgac cagcatccca gaggtgcaga aaaaaccctg 16800
tcccctctct gcacttatcc cccatcccgc ctccaactca ctccccccaa cctcaacagc 16860
ctcctggcta ttgctcatgc cctgtgggct gggccccacg ttcctgcctc agggcctttg 16920
cactgactgt gctctcgtca gaacactctt ccccatgtgc cttcatggct tgtgccctcg 16980
cctcctcagg accttacata ggtgtcacct ctcctgagaa ccctgtcctg gacagccttt 17040
tttaagtggc aatttctacc tggccccagt gggccccttc ccttcctgct gtctcccaca 17100
gtccttatgc ccctggggct ggctgtgcac ttctcggatt ttgatatcat ctgtttcccc 17160
tgtagaattt cagctccctg agggcacagt ctttgcctgg cctggagcag aggctggcat 17220
atagtttcgg tttttgtttt gttttgtttt gaaatagtct cgctctgttg cccaggctgg 17280
agtgcagtgg cactatcttg gctcactaca accttcatct cctgggctca agcaattctc 17340
ctgcctcagc ctcctgagta gctgggatta cagtggcact ccatgacgcc tggctaattt 17400
ttgtattttt agtagagacg gggtttcacc atgttggcca ggctggtctc aaactcctga 17460
cctcaggtga tccacccgcc tcggcctctc aaagtactgg gattacaggc atgagccact 17520
gcacccagcc tagttttgga tgaatgaagt gaatgaatga atgaagggcc tgacaaacac 17580
accatagaaa cagcagcagc tgtcattaag tattctgagg ttgccggccc tattccaggg 17640
ccttcccatt accctcacca caccccatgg gggtggcact gccctaacct cggagaggtc 17700
cttaggccac acgggtggtg agtacagtgc cacagtgtga atctgggtac acggacacga 17760
acccttacct ctcatcagct gaaccaatga taatggttga tgttcattaa ctcagttaac 17820
tctcacagta atcccataag ggcagtgctg ttattctcac ttctctgata cagaaattga 17880
agtccagaga gggctgggca cggtggctca tgcctgtaat cccagcactt tgggaggccg 17940
aggcgggtgg atcacctgac gtcaggagtt caagaccagc ctggctaaca tggtgaaacc 18000
ccgtctctac taaaaatacg aaaattagcc agatgtggtg gcgtgtgcct gtaatcccag 18060
ctactcggga ggctgaggca ggagaatcgc ttgaacctgg gaggaggtgg aggttgcagt 18120
gagctgacat tgcgtgactg cactccagcc tgggagacaa gagcgaaact ccgtctcaaa 18180
aaaaaaaaac aaagaaaaaa aaaggcgtat acacttgctg gtagatggat tgctgtctct 18240
ggaagaatat ggaagaaact gatgacagga gttggtatta aggaggggac cctgatccat 18300
ggagatcaac aggaaagatg ttttactggg cactctgtca agtactacta ctagaaacgt 18360
atatattaag gccaaggcca tgactggggt gctagaacca tccagagagc ccactgcaga 18420
tgtcctgaag aaccagccaa gcccagaacc caggctaggt tggaggctgg cagcagagga 18480
agaaagtgca caggaaaaca cccaggatcg cctcaaacgg aagctgagcc cgaggcttgc 18540
catgtctggg agggccagac tgctcagccc agctcctgcg tgctgccccc atcccagggt 18600
gaccacagcg gccctgcccc gggaaggctc actcaccagg tagtatctct cccggaagct 18660
gggggtgctc gggggtgtcc agttgtacaa ggagcccttc ctgctgccca tagaaaactt 18720
gcccgtgggg ctgggtgaca ccaggaagct ctcagtatca aacgggctgg aggagagaac 18780
agaaggtcag gatgccatcg gcacccagag gccatttcag gcccagacgg cccacagggc 18840
tcttaggtta tgcaggtaga tggtcttcat cttacaatac aatagcatgg atggtgtgtg 18900
aggagctctg ctctaaactg ttgcttgttt ttgagacagg gtcttgctgt gatgcccagg 18960
ttggaatgca gtggtgccac cacagctcac tgcatccttg aactcctggg ttcaagcgat 19020
cctcctgcct cagcctcctg tgtagctatg accacaggca tgtaccacca tgctggacta 19080
atttttaaat ttatttttat tttttgtaaa gacagcgtct tgccatgttg cccaggctgg 19140
tctcgaactt ctgggctcaa gcaatcctcc tgcctcagcc tcccaaagtg ctgggattac 19200
aggccatgag ccactgagcc cagcctctac taaactcttt acacaaatcc ttatttccac 19260

ccccaagaca accctctgtg gcctggagaa ttatttacag gggaggaaag gaaggctctg 19320
agagatgagt gacttgctta gggcagtgtc acaaccaacc acgcgagacg gaactgaatt 19380
cacacacaga ttttctctga ccccaaagcc ttaaagatca ctaagagtga tgcttactct 19440
tcagacatca ctgtacttaa tggatttaag aggaaatggg ctgggtgctg tggctcacac 19500
ctgtaatccc aacacttcgg gaagccaagg caggcagatg acttgagctc aggagttcga 19560
gaccagcctc cataacctgg caaaaccccc gtctctacaa aaaatgaata cattagctgg 19620
gctaatgtgg tgaccaacag acacttgtag tcccagctac tcaggaggca gaggtggaag 19680
gagcacctga gcctgggagg tggaggctgc agtgagccga gatcatgcca ctgctctcca 19740
gtctggggca acagagcaag actctatctc aaaaaaaaag aaaaaaaaaa aaagcaaaat 19800
aaaacaggaa atggaggctt gggcctccaa gtccagggcc ttgcccatgg tcacaggtgc 19860
agcctaggaa ctccaggtta catgacctct acccctttag aaacctttct caaggctggg 19920
cgtggtggct catgcctgta atcccagcac tttgggaggc caaggtgggt ggatcgcctg 19980
aggtcaggag ttcgagacca gcctggccaa catggcgaaa ccccatctct cctaaaaaca 20040
taaaaaaatt agctgggcat ggtggcaggc acctgtgatc ccagctactt gagaggctga 20100
ggctggggaa tcgcttaaat ctgggaggca gatgttgcag tgagccgaga ttgcgccatt 20160
gcactccagc ctgggcgaca gagcgagact ctgtctcaaa aagaaaaaaa gaaacctttc 20220
tcagactctg accgccctga gggcccttag ccagatggtg agggacagtg actgtgagca 20280
ggagagcagg atctggaggc aggaaacctc aggtcaattc atgctaaatc aaggaaagac 20340
accaaggtct gaagggacag ggaatctaag gccaattaac gcaatcttcc taaagctaac 20400
ccaaaaggaa aaaccccgtc tccccacact gagtagtaaa ggatcaaagg caacgctccc 20460
tacagccctc ctgcctccaa ccatggctca gatggaaagg gagggtgtat ggatgggccg 20520
ctggcgaaac agggaccatc cctctatctg catagggcgc catccacctc agcctctaac 20580
cacagaccaa atcctttatc cagaaaaggg gcagcccata ggaacctcaa acagggtact 20640
taaagcccag aaactttgaa accatgccct tgagccacat gctcgggccc actcccaccc 20700
tgtggagtgc tttcttgcct ttttttttct tctttttctc tgagactgtc ttgctctgtc 20760
acccaggctg gagtgcggtg gcgccatctt ggctcactgc agcctccgcc tccccggttc 20820
aagcgattct cctgcctcag cctcccaagt agctgaaact ataggcccgt gccaccacgc 20880
ctggctaatt tttgtgtttt tagtagagat ggggtttcgc cttgttggcc aggctggtct 20940
cgaactcctg acctcgggtg atctgcccac ctacgcctct caaagtgctg ggattatagg 21000
tgtgagccac cgcgcccaac ctgctttctt gctttaataa agtcctgctg cttcattcct 21060
gcgtttcatt cccctgctcc ttttctgcat tttgttcaag tctttgttca aaatgccagg 21120
gacttggaca actcattgtc aagaccctcc accagtaaca actggacacc cccagttaga 21180
ggccccttg agaagctcag ccgatgagca ggggacactc ggttcagacc ccttgtctgt 21240
aaaaggggtg cgcttacaga agaaccccca tgtggaacat gcacagggaa gggtgggaat 21300
ccaggcgagc gcatgggagc accgaggcaa gtgatgctca gcctggcccg tgatgctcag 21360
cctggcctgt gtccagcctt gcactcggag taggtaggtc cccatagatc catttgcctc 21420
gaagaaactt gcttataatt atttgcacaa aggcctggct cgtggcacct gggcctggcc 21480
tgaccagaag gcctagagct cagaggctct gcaagtgccc acttctctgc ccagggtgtc 21540
tgcagacccg caggcaccct gggtcctagg cttggatggc actgagctgc ccgccaccct 21600
gtacacttca ggggcccctg ggcgaggggt attctcagcc ctaccagaca ggtgaggacc 21660
ccgagggtgc aggtggtcgc tcaacagaat tcacccagct cacgagggag agggcagcag 21720
ctttgtgacc cccagctcgg acacccaccc tagggagaga ggagagagac cagccccgac 21780
tggccagagc aagcacagag cagaggagtg tcctcagccc tcccttctgc tgcctctgcg 21840
ctgaggagga ggaaaggaac accctggaaa tgcaaggctt ccttagaaca gagagctctg 21900
gagccctcca cgctcatggg catgcagtcc agggagtgat ctcatggaca tgggcttcat 21960
gggtctgcag ccgagagggg gacgcaggtg accgctcagc cccaggccaa gggggcagcc 22020
agggtcggcc aggaatgagg gggtgggagc agcaaggagg gccttcctgg agaggtgagc 22080
ctcctccaag gagccaagcc cgggaggccc cggaaagtgt ccccccaacc ttccctgtgg 22140
ctttaatagt caggggttca gaagcaagaa gggaagcaaa accagaaagg caggcagggg 22200
ctacagagaa gttctaggcc tcgacctgac tgaggggtgg gagtgaggga cagatgagga 22260
cccgtgaggg cagggacacc cttggcagag gctggtgcag gaacccaggg ccagagtgtg 22320
gccaggccac caggggcagc cagccaggcc tccgctctcc ccaggctgga cgggactcac 22380
ttccactgca cctccagctg cagcttgatg gtacccaact ccgtgatgtc caccacgatg 22440
acctgcggcc gcgtcgtgaa gaagtcggcg atgtcacacg tcactgcacc cacagccagc 22500
gagcccaggc cccgcaactc cgtcacctgg gggtgggggc tggagggtgg tgtctgagcc 22560
gaacacccag gcaccccagc cctgcccccg ggccccatcc ccaccttgat gtccaggttc 22620
tcatgcagcg tggggatgaa ggccttctcc tcttcgtccc aggtctggct gtcatctgac 22680

```
tcgatccgac ccttgagctt ccaacgctgg cggcccagac gcatgagcac ctgtgaacca   22740
gcccgagagg ggccgcgtca gcccaggtgg gtgtcccctt gctgtccgcc cagggccctc   22800
cctgccaggc agagccccag ctgcaaccct ggttcccagc agctcccgtc ccccaaagac   22860
ctggcgggga gccctgagga ttgaccccag agagtggccg tacctcatag tggtctccgg   22920
gacagaggcg tgcgtagccc accaagcctg gaacacagac atggccggtc tcccctccgc   22980
cttccactct ccctgacctg ggaccacagg tcctctctgg ggttcccccg agtatagatt   23040
ttcagtttca gtggggtgag gatgggggggg aggtacacca tcatgatgga aaatggacag   23100
agggtgctgg gccctcacac caggctcaga gaggggtggg acttgccaga agtcacatgt   23160
cacatggatg caaaagccag ggctgggctc agacccctgg gattctggcc aattcccgtg   23220
cccctcagca gaagtctcag ggcctccaga aaggcctccg cccacccccc ctcagccctg   23280
ttacctttca tcctgatgtg gaactcgccc aggtgaacct ccagggcccc ctcgatgagc   23340
cacatgtcct gcaaagcccc ggaggtggct cagctggctg cctggggcta ggccacgagg   23400
gcctctaacc atccctgcag ccagacagag gccacaggca gagagacgcc tccttggggc   23460
ccagaacacc tcctccagcc cccactggcc cagctctcga tgtccccact gcccggccca   23520
gctcttgctg cccctgctgc ccagcccagc ttggcccggc ccacctcggc gcactcgtgc   23580
aggctgcggc ccagctcctg caggctctct cgggctgcgc ggctcggggg gcaccgggcg   23640
aaggcccgct gcatgctgga ggcgccgtcg cgcaggcggc actggatgca gtagtcctcg   23700
tacagctcat ccacctgtgg tgggcacacg ggctggtggc gctgcccacg cggaggggcg   23760
gccccacacc tgcctgtcga cttctcctct ctgggagagg ccctccctga gctaagcacc   23820
ccgctagccc agcccatggt gacagtcact acctgtccag tcccattcaa agcagtcacc   23880
cctggcccca gtagaacatg aacccccata ggcagggacc acatctgcct cacctgcctc   23940
acctgccacc actgcctcac ctgccacccc taccaccccc gcctcacctg ccacccctgc   24000
ctcacctgcc acccctgcct cacctgccac ccctgcctcc cctgcctccc ctgccacccc   24060
tgcctcacct gccacccctg cctcacctgc cacccctgcc tcacctgcca ccccggcctc   24120
acctgccacc ccggcctcac ctgccacccc tgccaaccct gtctcacctg cctctcctgc   24180
ctctcctgcc acccctgcca accctgtctc acctgcctct cctgcctctc ctgccacccc   24240
tgcctcacct gctgcatacc cagctcctgg cagcgactgg cacacagtgt gcacagcaaa   24300
aatgagtgaa agggacaagg gaatctgtcc cttcacctcc tctgcctggt ttttcaacaa   24360
tgaaatggga gatgactttg tgataacctg ccacccactg ggcagtgtgg ggagtaaagc   24420
aagatcatga aaccgtttgc agactctaaa gcttacagat ctgctatgcg accttgggcc   24480
aacccatgtt catctctgga cctctgcttt tccaactgta caatgggctg ggagggctca   24540
accttcccag ccatctaaga ctgagcatga ggtctttctg cataaactga agaaagagcc   24600
cacacagtcc tcagggagtc ccacctcagg gctgagcccc ctgactccca cctcagggct   24660
gagcccctgc tgtccttcaa ctggcccgag gcccctgctc atccttagcc tcctgcagct   24720
gccccatacc cagaggccct gatccctgtt tcgagggcac ctccccagct cctgctaacc   24780
tagctgaggc ccagcaagct ggcactgccc caccccaccc tgcaacatcc acgagccagc   24840
tgaccttgct gatgtgaaac tccatcttcc gaatgtgcct ttccacacag cgcgtttgct   24900
tctcccggaa aaagggaaga tgtttgcaaa gttgcctggg ccacccacct gccccgcttg   24960
cccctgccac cctcctacag gtcctaactc agagaatggg gcccctcacc atccctgagg   25020
aaggctcatc gcagagactc agccttccca ttcctaaaat ggggaggaga cccaggtttt   25080
ctgcccatca ggcagccagg aagatgcaat gaggcacagt cattctcatc cagccaggcc   25140
cagcccacct cactcaccgt atgcagactc accttgtcca ggtcataata gaaagcctgt   25200
gagggaggaa aggagggcgg aagaagctgt cagagtccca catgttcctc caaggcctat   25260
gaggctctat gctggcggcg cctgagctca gagtcagagg acagaaagcc atgtctacag   25320
ccacccccac ccactccttc ctctgccaac ggcagactgc tgtccacgcc aaggacagca   25380
ctgattaaac acatgcacgt gggatgaggc agttctaggt ctggctcttc tatttcccag   25440
ctgcgtgtcc caggcaagtc attcagcctt tctgggcctc cgtttcctcc tatgtaaagc   25500
agggtaggag aagcgcctac ctcacaggga gaaaaaagga cacagtaggc ccttgacaaa   25560
atgggaacca ttgagattga aggaatggcc tcggccatga caaaagaaca tgaggggat    25620
ggaagcggga ggggcacatg gcacagcagt tcaggcctta atggtgaatt cctaagtcta   25680
tccattccag gggccagggt gcgaccaaca caaataatat atcatcaggg caggcaaacc   25740
tttctatagg tttgtaaagg gccagagagt aaatatttca ggcttggcag gccacggcgc   25800
cccatgccaa gatctataaa gtaggaccat cctggccagg cgcagtggct cacgcctgta   25860
atcccagcac tttgggaggc tgaggtggtc agatcacttg aggtcaggag tttaagtcca   25920
gcctggccaa cgtggcgaaa ccccatctct actaaaaata taaaaagtag ctgggtgtgg   25980
tggtgcatgc ctgtaatccc agctacttgc cagacttgag gcaggagaat cacttgaacc   26040
tcagaggtgg aggttgcagt gatctaagac cgtgccactg tactccagcc tgggtgacag   26100
```

agcgagactc catctcaaaa aaaaaaaaaa aagaaaaaaa gtaggaccat ctaaaacata 26160
cacacctttg cctaccttag agttacttct agaaccaaga aagagtgtga agtggaccta 26220
agacatggga agtgctgtac ctgcctgtgg ggttaaattc atcagggtca aagttttgtc 26280
ctaactaagc aactctgcca tcatagtggg aaagcagcca cagacaatat gtacatgaac 26340
aagtgtggtc aagaaacatt tttttaaaca agtgtttaaa aaaactcttg ttttttaagt 26400
gactctaatt ttaaaatata gtgactctaa ttttcactgg ctgttaattt ccagtggaga 26460
ttagagtcac tatgtctgag tctggagggg ttaccatggg gttgtagatc caccagggag 26520
gaaaagtaag ctgtaggaga gtatgtaaat tgacatttca tttttgtaag acaattttaa 26580
ctcacaattg ctaaacacat ttacatgatt atgtgaccag agagaaaaat atggaaagat 26640
caataaaaga ttgttctcaa gggttaaacg ggatgggaca cggaagattg aatagaggag 26700
ggcgtcaatc gagaaagaaa gaaggattca accccaaaaa gtcccatgta tgtatttatg 26760
tggaattgta catatgcgat aatgaaataa aaattccatt taagccaggt gaagtggctc 26820
acacctgtaa tcctagcact ttgggaggcc aaggcaggag gatcacctga gcccaggcat 26880
tcaagaccag tctgggcaac acagcaagac cccatctcta caaaaaattt aaaaattaac 26940
tgggcatggt ggcacacacc tgtagtccca gctacttgag aggctgaggt aagaggattg 27000
cttgagccca ggagtttgag gttacggaga gctatgatcg taccactgca cttcaccctg 27060
ggtgacagag taagaccttg tcactttaag aataaataaa taaaatcttt ttaaaattaa 27120
gaaacaatta aaactccatt taagaaataa agaaacagga tgggtgtggt ggctcatgcc 27180
tataatccta gccttttggg aggccgaggt gagtggatca cctgaggtca ggagttggag 27240
accagcctgg ccaacatggt gaaaccccct ctctactaaa taaaaaatac aaaaattatc 27300
ctggcatgat tgtgcgcgcc tgtaatccta gctactcagg aggctgaggc aggagaatca 27360
cttgaacctg ggaggcagag tttgcagtga atggagatcg tgacactgga ctccagcctg 27420
ggtgacagag cgagaatcca tcccgaaaaa aaagaaaaga aaagaaaaga aataaataaa 27480
gaaagaggaa agatcccaag cctttgaaaa gaagagtgac tacccagcaa cgtctcaaaa 27540
accaacatct tgtttcaatg agaaccagca gtgtcatggg agcaggactc gacatgggca 27600
tcttgctgtg tggctccagt gcggtcactg tgccctggcc tcagtgtgcc catctatgac 27660
atgggagcag ctaaaacata caagtattta tactcttgcc tgctttagag ttacttctag 27720
aatggaaaga atgggaaacg aagtccacgg ggtgagactc actgtaccca tgtgagaaga 27780
ggggcaggtg ctggagctgg gtgatatctt ggcagcacct tctcccacca tctgctgctg 27840
gtcacccgcc caactgtcca ctaagggtga ggcatgctga gcttggcagg cctttccctc 27900
cccaagtccc tggcacacac atgaggctgg gtccttgcct ctcctaccct gcccaccccg 27960
aggccctctc tgctggagcc aggatacaga gacggccgct tgtttgcttg cttatttcat 28020
tcattcattc attcattcat tcattgaaac agagtctggc tctatcgtcc aggctggtgt 28080
gcagtggtac gatctcacct cactgcatcc tccgcctcct gggttcaagc tattctcctg 28140
cctcagcctc ccgagtagct gggactacag gcacccgcca ccacgcctgg ctaatttttg 28200
tatttttagt acagatgggg tttcaccatg ttggccaggc tggtctcaaa ctcctgatct 28260
cgagtgatcc acccgccttg gcctcccaaa gtgctgagac tacaagcgtg agccactgtg 28320
ctgagccact ggatgctatt ttggtagaaa aactcatctc ccctcctcgc tttcccagtc 28380
cctcagtcaa gctggtggcc tgttctgcac attggtgctt tggaggaggg attctgggaa 28440
acactggctg ggaggagaat cccacagtag caaggcctcc ttgcttttgt ctccaaatct 28500
aattcattaa ggacatgtgg ggttttctca aggcagcagc ggagagactt cccagatgaa 28560
aggaagatcc tcctgctgaa aggatgaagt ccctgagcaa tgggatccta gcagtgtcac 28620
cagataaaat acaggacacc taattaaaat taaaatttcc aatcaacaag gaacaattat 28680
tttagcataa gtatgtccca aagattacat gggatatact tatacctaaa caaatttgtg 28740
atttgtctga aaaaccaatt taatgggagg ccgggcacag tggctcatgc ctgtaatccc 28800
agaactttgg gaggcagagg caagcgaatc acttgaggtc aggagtttga gaccagcttg 28860
gccaacgtga aaccttgtct ctactaaaaa tgtgaaaaaa cagctgggcg tggtggcggg 28920
tgcctgttat cccagctact caggaggctg aggcaggaca atcgcttgaa tctgggaggc 28980
agaggttgca gggagccgat atcacaccat tgcactccag cctgggcaac agagtgagac 29040
tccatctcaa aaacaaaaca aaacaaaaca aacaaattta atggggcatg ctatttgtga 29100
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgttg ctaagtcggt ctctgctaag 29160
ggagaggcaa aaaaccagag caggtgagcc ttgggcaaca cagggcccag ggccagcctg 29220
aaagacactg ccttggctgg cacagtgcct cacacctgta atcccagcac tttgggaggc 29280
cgacacagga ggattgctgg agcccaggag ttcaagacca gcctaggcaa catgatgaga 29340
ccctgtatct acaaaaaatt taaaaaatta gctgggcatg gtggtgcatg cctatagtct 29400
cagttacttg ggaggctgag gtaaaaggat cgtttgagcc caggaggtgg aggttgcagt 29460
gagccgggat tgtgccactg cactccagcc tggacaacaa agggaaatcc tgtctcaaaa 29520

aaaaaaaaaa aaaaaaaaga cactgccctg atgatggcag gaaacgctgc ctgtcagctg 29580
ggcattgaag gaacacgcag gcttcatcaa ggacagcggc agaggccact gtgacatacc 29640
caagatgtga cacctgaccc actttcctgg cattacagaa gccatcccaa gtccaggtca 29700
cctgatggcc aaggtctata aaataggacc acctaaaaga aatgcacctc catacactgc 29760
ccaccttagc attacttcta gaaccgagag acagtgtgac atgggcctaa aacgtgtgaa 29820
ctgctgtacg tgccaaagtg aagttaactc agtgcaacgt gaagaggcta ttccataaac 29880
ctctagttct gagaaagagt cacaccgtga cataggctag aaggaacgca gggttcatct 29940
tttactcctg gccaaggcta tctgggtggg aagcaggcag ggaggggtct caccagcctg 30000
gaattcctcc tggtgtcttt gtggcgtcca gacaggtggt ccagctcagc ctgctgcaca 30060
cacagatact ccctgcaagg aaagcaagga agagtttcaa atggaagagg aagaagaaag 30120
ggaaaggaag taggccaaat ggacaatgtc cccacgtgga gagcagacac ggggctcagc 30180
ggggctcaga ggcaggtagg aagccaggct ccctcacact gggggctgtg tgcccagcac 30240
cacacaaaat tggttacagg gaagttccta gttaattccc ccaccaggcc cacaagtagc 30300
ttctactgtt attatatgca ttttctttct ttctttactt atttattgtt tgagacaagg 30360
tccccctct ctcgcccagg ctggagtgca gtggtgtgat cacagctcac tgcaacctct 30420
acttcctggg ttcaaatgat tcttatatct cagcctcttg agcagctggg actacaggtg 30480
tgtgccacca cacctggctg atttttgtat ttttagtaga gatggggttt cactatgttg 30540
gccaggctgg tctcgaactc cttgacctca ggtgatctgt ctgccttggc ctccgaaagt 30600
gctgggatta caggggtgag ctaccgcatc caacctagta tatgcatttt aaagatagac 30660
aaaccaaccc ttgaaagcag caagtacccc agccccggtc acacagcaga gaagaggctg 30720
aacccacgtc tgaaaccaca cagtggcctt ctgagcccaa aatcttcatc cccatgttat 30780
acccccctcc aagctggggc ccagctcatg gggaggtcat catggcacac ctccctcaag 30840
gtcaagggtc taggccgggc gccgtggctg acgcctgtaa tcctaacact ttgggaggcc 30900
gaggtgggcg gatcacaagg tcaggtaatc gagaccatcc tggctaacac agtgaaaccc 30960
catctctcct aaaaatacaa aaacttagcc gggcatggtg gcacacacct gtagtcccag 31020
ctactcggga ggctgaagca ggagaattgc ttgaacctgg gaggcagagg ttgcagtgag 31080
ccgagattgc accactgcac cccacctggg caacagagcg agacttcatt ccaaaacaaa 31140
gaaggtgggg ggcgtctaga tttgggggcc aaggcaggga gtcccatctt gctggatttg 31200
ctgagtcatc ccaggaaggt cactcacact ctctgggctc tactgacacc acctcaaatg 31260
tggaaaagat agcttctgcc agactgctac tcactgaggt attgagctct ctgggaagaa 31320
ggggctgcct tggccccaga caagtctcaa acatgtggtc cttaaaggac acagaatctg 31380
tccttcagaa acatgctcta tcgtccatgc acatcccagc tcccactctg cacaatccca 31440
gcttgctgca gcctccacct ctacaggatt ttgccatatt cccatgctgg tcttgaactc 31500
ctaggctcaa ggaatctgcc tgcctcggcc ccccaaagtg ctgggattac agggtagcca 31560
ccgctgtgcc cagccaagga tgtctatttt gaaaaccatt tcattctaag gtggtttccc 31620
ttttttttttt ttttttttttt tgagtcttgc tctgtctcct aggctggagt gcaataacgc 31680
gatcttggct caccacaacc cccacctccc gggttcaagt gattctcctg cctcagcctc 31740
ccgagtagct gggattgcag gcatgcccca ccacgccggc taattttgta tttttagtag 31800
agacggggtt tcaccatgtt ggccacgctg gtctcaaact cctgaattcg tgatccgcct 31860
gcctccgcct cccaaagtgc taagattaca ggcccactgc gtctggcctg gtttcaactt 31920
ttacttgact ctggttcctc tttggggtgc cccatctata aataagagat gtaggggctg 31980
ggcgtggtgg cttatgcctg taatcccagc actttgggaa gccaaagcag gtggatcaca 32040
aggtcaggag ttcaagacca tcctgaccaa tatggtgaaa ccacgttcta ttaaaaatac 32100
aaaaacaaat tagccgggcg tggtggcaga tgcctgtagt cccagctcct cagaagtctg 32160
aggcaggaga atagcttgaa cccaggaggc agaggttgcg gtgagctgag tgagatcaca 32220
ccaccgcact ccagcctggg tgacagagtg agactccgtc tcaaaaaaaa aaaaaaaaaa 32280
aaaaaaaaaa aaaggcgtaa gtaggagaga atttagggtc taagtaccac tatatctggg 32340
gaaaatcact ccagaaacca ctctttggcc cacagggccc cctgtcatct ggtccccatt 32400
gccccataac ctcatcctct ttcctttggc tctagccacg ctggcctcct tgctgcgccc 32460
cagggccttt gtgtatgtgg ctaccctggc ctggaatgtt cttttccccct tcaggagtgt 32520
gctccaatgt caccttctta gcaaggcctt ccttccaact gcccaactta aaatgaaccc 32580
tccctgcctc tgcctgctta ccctggcctg ttttcctctg tggcccttac taccatctga 32640
tattctctgt acttttcttt tctgtattgt gtattgtctg tctctccccc actaggagtc 32700
agctccacag gaggtaggga ttttgtgtgt ttagtttact tctgtccccc ggcctggcac 32760
tctgtaagcc caataaatat ttgtgggctg ggcacagtgg cttatgtctg taatcccagc 32820
actttgggag gccaaggcag gcagatcact tgagtcagga gttcaagacc agcctggcca 32880
acatggcgaa acccagtctc tactaaaaat acaaaatatt ggctgggcgc ggtagctcac 32940

acctgtaatc tcagcactct gggaggccga gatggacaga tcacctgagg tcaggagttc 33000
gagaccagcc tggccaacgt ggtgaaaccc tatctctact aaaaatacaa aaaattagcc 33060
aggcgtggtg gcaggtgcct gtaatcccag ctactcggta ggctgaggca agagctactc 33120
tcagcctctg ctttctcatc tgtaaaataa ggaggctatg ccaggtgcag tggctcacgc 33180
ttgaacccag gaggcggagg ttgcagtgag ctgagatcac accattgcac tccagcctgg 33240
gcaacaagag caaaactccg tctcaaaaaa agaaaaaaaa aaattagcca ggtgtgatgg 33300
tgcgtacctg cagtcccagc tagttgggag gctgaggcag gagaattgct tgaacccaag 33360
aggcagaggt tgcagtgagc tgagattgtg ccactgcact tgagcctggg caacagagcg 33420
agactccatc tcaaaaaaaa aaaaaaaaaa aatttgtgga gtgactcatc cttcttgtgc 33480
aggcctcggc ccagctcatc agttggtctc tgagcaagtc tgtccttcac tcaaacaccc 33540
accgccctga cctcttgcgt gtgtgggctc acagtgcagg ctcctactgt ggggcctttg 33600
cccacactgt tgcctgtctg ccgaggccct cgacgcactg tctctctgtt acctttcttc 33660
attgcactca gcacaggtgg aagttctatg attgattgca ttgcttcttg attgattgca 33720
ttgaatctgc ccctctgcag tgcgtgctcc acaagatcag agtcctcctg ccttagtcac 33780
tgccaggttt ccagtgccca aggaccgggc tgagcacgcg gctgcaccct gacatacttg 33840
cttactaaac gaatgaccag gaacttaacc tgtcacctct tgtagacaag acccatccac 33900
gcttccccag gaagagacag agaggaggcg aggtagagga atgcacttct taaaggcagc 33960
acacagccca gccttacttg aggcctcttt tcaatgcttc gaagatcttc ttcacctgct 34020
ggggcttcgg gtctgcacag accgacccct tccgcagcgt gccgtacatc ttggaggatt 34080
ttgcaggcat tcgcgatctc acggagttcc tgttgatgga ctttctgtga gaagggttgg 34140
agggcaagag aagtcagaga agggccctga caaagccctc cccaggggca ggcactttgg 34200
aaatagtgac cagagccaca gggagtcagg agacccggct cagtcccacc cccatcacca 34260
ccaagcagtg tggtttccag aaagttatgg agcctctctg ggtctctgct ttctcatctg 34320
taaaattagg atcctgggcc aggtgcggtg gctcacactt gtaatcccag cacttcggga 34380
agctgaggtg ggtggatcac ctgagatcag gggttcaaga ccagtctggc caacatggcg 34440
aaaccctgtc tctactaaaa atacaaaaat tagccggatg tggtggtacg tgcctgtaat 34500
cccacttact ccggaggctg aggcacaaga atcgcttgaa cccgggaggt ggaggtttca 34560
gtgagccgag attgcatcac tgcactccaa cctgggtgac agagtgagac tcagtcttaa 34620
aaataaataa ataaataaat aaataaataa ataaataaat aaataaataa aaataaggag 34680
cctagatttg aggattaaaa gaagagtaat aaagcttttc caccatggct gccactggag 34740
agcagcagcc atggctctgc gctaccctat ggccatgggc ctcaacaagg gccacaaggt 34800
gaccaagaac gtgagcaagc ccaggcacag ccgctgcagt gggtgtctga ccaaatacac 34860
tgagtttgtg cgggacatga tccgggaggt gtgtggcttt gccctgtaca agcagcatgc 34920
tatggagtta ctgaaggtct ccaaggacaa acaggccctc aagttcatca aggaaagggt 34980
ggggacacac atccacgcca agaggaagca ggaggagccg agccaatgtc ctggccgcca 35040
tgaggaaagc cactgccagg aaagactgag ccccctcccc tgccctctcc cggaaatata 35100
gaacagcttg acaaaaaaaa aaaaaagaac agtaataaaa atctggtatc agaaatgaac 35160
ttacaggaag aaatacagtc aagtagccca aatgccaatg ctctctgatc accatgctct 35220
gcctgtgcag gcaatgccgt gtgggaggcc aagtcatagt cctgtgcttt acccttgggg 35280
cagcatctgt tggctttacc tgcccagcat ccatcccctc cctctagtag tagcacctca 35340
attttcctct ggggcacctc cccagctctg ctttttatac ttgtggtttg ggggaaaggt 35400
agcctgacta atcaacatgc acacacacat ttgcacatgc acacatgcac acgggattgt 35460
ttggcaaatc cacattccag gcctgcgtta gtcaacatat tctgctcccc tgggccaaga 35520
agtatgggga tcaagcctgg ccagtagcca gccaggagtt cagaattcac agaagggaga 35580
agtgtttttt cccctggcat tgctaacctg gggaacatat acctgggact tccagcctcc 35640
tccttttgcc accatgtagg gaaactgggg ccaacacaga gaggaacaaa cagagtcaga 35700
ccaaatctcc atgacagtga gttcctggat ctagctatgt ctaaagctga acctgcccgt 35760
ggactttgca gttacatgag ccaactggct ctcttttta gcttaagcca gctggagttg 35820
ggagtgtgga ctggatgatc ctaaaaactg cctttcagtg gtgatggctg ggtccctcaa 35880
catttagaga tgtagcagca tctcaagact gattatagga gtacgaggcc agggcaccct 35940
catcacagca cagagctggt ttccctggca tctaagcctc ttctcaggat cccataactt 36000
atccatgagg ctggctgatg cagcctttgc tcaccaacag atgtgttgaa ttctgctctt 36060
agccctctaa agccatcagc caggcgccct ggcaccaggc atcacttaat gacaacattc 36120
tcacaaaaga gacatggtgg aaatgactct tagatctaac tttggcatca gttctctttt 36180
ttttttttt tttgagatgg agtctcactg tcacccagcc tggagtgcaa tggtgcaatc 36240
tcggctcact gcaacctcca cctcctgggt tcaagcgatt ctcctgcctc agcctcccaa 36300
gtagctgaga ttacaggcat gcaccaccat acctggataa tttttgtatt tttagtagag 36360

acagggtttc accatgttgt ccaggctggt ctcgaactcc tgacctcaaa tgatccacct 36420
gcctcagcct cccaaagtac taggattaca ggtgtgagcc accgtgcctg gctcagcatc 36480
agttattata ggggactact ggcccttctc ttccaactcc tcctcttccc aggggcggga 36540
ataacggtat gctggaagca gcttcaaccc acccctaaaa gctggctgaa caacaagaga 36600
gaaggaacag gccctgaata gcctcgtgaa gcagacctcc caacacacac acatgccctc 36660
atccacccct tggctctgga ctgcagagag agagagagag gaataaccaa tctcaagtaa 36720
gcacctgcat tttgggggtc cttttatcaa agcaacttca cctctacatt aacaacacac 36780
tacccaaggc tctgtctttt cactggtaaa atgggaccac gtaatacatc agaggatggt 36840
gctgagaatt ctattagatg ccaggcccaa aatgtggcac aaaggagacc ttttacatgc 36900
aagctgttgt tagaatcatc acatcctatc tgtatctttc ccctggctca cagcttagaa 36960
aacattaggt gcaggccagg cactgtggct cacacctata atcccagcac ttcgggaggc 37020
caaggtgggt ggatcaactg aggtcaggag ttcaagacca gcctgaccaa cctggtgaaa 37080
ccccgtctct actaaacaaa aaattagcca ggcgtggtgg tggacacctg taatcccagc 37140
tactcgggag gctgaggcag gagaatcact tgaaccggga ggcagaggtt gcagtgagcc 37200
gagatcatgc cacttcactc cagcctgggc agcaagagca aaactctgcc ttaaaaaaaa 37260
aaaaaaaaaa agaaaaaaaa gaaaatatta ggagtttggt aaatattaag ctcagctgaa 37320
cgggggaaaa tacagtatcc caaggggatt agagaacaga gaacctggcc cctgcaggca 37380
gagcgggata gcgagtgcac ccctgggtgt tcccagctgg agacagaggg agcaaaggtg 37440
gagaatggga cctggtatgc tctgggagtg gatgcaagga gcaaggtttg acccaggcag 37500
aagtgggagt ctgcagaggg gcctggacct ggggcctctc tagttttggg gacccaggat 37560
gtgtgagagg aggagaaggg cagctcccag agaaagtcca gcttccaaca cctttacaat 37620
gacaagtaat gtctctgtag agcagagaaa ctaagctcag gccagggcta gtgggctgct 37680
gaacagctga caccacaagc ccaagggcct caggagcctg gtgagaacac gtgagcctaa 37740
gtaactgggg gcacctgctg ccgccaggag ctcgctaagg gctttataga aatatctcga 37800
ctttcacaac caccctagga gacaggtatt attcttatta ttattttgag atgaaatttc 37860
gctctgtcga caggctggag tgcagtggca cgatctctgc tcactgcaac ctccgcctcc 37920
caggttcaag cgattctcct gcctcagcct acccagtagc tgggattaca ggcatctgct 37980
accacgtcca gtaatttttg tttttttag tagagacagg gcttcacctt gttggccagg 38040
ctggtcttga actcctgacc tcaggtgatc tgcccgcctt ggcctcccaa agtactggga 38100
ttgcaggcat gagccactgc acccagccat ttgtatatat ttaatgttaa gtgatgcttt 38160
ccaaagccca caggggctgt gctccctctt ccccttgccc tccctgaggc cccatcaccc 38220
acctcttgaa ccgggccctc cgcaagtttg ccatcttgag gctggcagag acggtcaggg 38280
ctgcagactc gggaaaaggc aggtttctga gaggttaggg accccggcag gtgggcagca 38340
ggcagtgggg caggagctcg ctcactccca gctcctgcct ccagccccca acaggtgtgc 38400
accgttggcc cagccccgct tccatccacc tggggacctt ataccctcgc tgctgcagcc 38460
acacctggat gcacctgctc ccgggaaagc tctgagccta gtgctccttg tgtgaggttt 38520
aacaggacag gctcagtggc cactctgaga gcccgcccac ccggggaagg tgatgcacat 38580
gcagcctcca gatggccaaa tcaggcagca tgtctggccc aggtgtcaca gaagccgggg 38640
caggaagagc ctctggggcc ggatgtttca ccaggtctgg gaggactcag taaatattaa 38700
acagcccctg gcatgccaga caagcttcca gacgggcacg tgcaacctgc cggccccagc 38760
cctcacgtga ggttgctaca gcagtccttc tgcctggtgt ggttggcaga ggccttggta 38820
ctcggctgtt gcaagtgcag gctctggagg cagacagggc cgggctcaag tcctgcacct 38880
gcccccagcc tccaggcggg acaattatag gactgactgc acaggcttca ggtgaagact 38940
ccatgcaaca aggacgtgag ccaaccattt acccaggtgc ctggcggtgc tggccactgg 39000
gtgatgatga caggcatgca ctcggcactt gccaagctca aattctgctc tcagtgcttt 39060
tgttttttt ttttttaatt gagacaaggt cttgctctgt ctcccaggct ggaatgcagt 39120
agcgtgatct cagctcactg tagcctccgc ctcctgggct caagtgatcc tcccacctca 39180
gcctcctgag tagctgggac cacaggagtg cacaattaca ctcggctaat tttttgtagt 39240
tttggtggag acagggtttc accatgttgc ccaggctggt cttgaattcc tgagctcaag 39300
tgatccgcct gccttggcct cccaaagtgc tgggattgca ggcgtgagcc accacgcccg 39360
cctggcctgc tcttggtgct ttacatgtat ggactcattt ctcctgacac agtctttgag 39420
gtcaggcccc ctggtaccgt ccaggaaact gaacttgcat cactcgcctc tggctccaga 39480
gtctgtgtgc ttgacagctt cacaggcagg gctggatatg agccgcctct ttctccagcc 39540
tcctctcctt gaaacttaat ggctgctatt tcgttttcac acccacactt cttagccatc 39600
ccaacagagg aattcccaag ctgaggagga tgtcccagtg gctcctggct cggggagtac 39660
ctgcctgact gcctgggggа gggagacctg gctgaggagg ggcaggaaag ggggaagggc 39720
aaccatgcct gtcaactggg gcagagtagg acagtatcgg ggcctggccc tctcctcctt 39780

catcctcact gtttatcctc tcatctctct atcctcccac cccccaggtc cagctcttgg 39840
gaaatggcct tattatgtca atcattcaca ccttagtata aaatttcccc accaggttac 39900
ttccccaagt gagccatctg actgtggagt aaaaatccct gtctatagtg aaaggggttt 39960
caaggtgcca gagtaggggt caaggtggtg atgggaagag aaggggcatc agcccaccct 40020
ctccatgcag agccctgccc tcctgccagg ttgtttgcct tgacagtgcg gctgcgcttc 40080
ggcctgctcg ggttaccagg gaacaaggcc agaaggtggg gcctgaaacc caatcaggct 40140
ccagccctgg ctccaagggt tcagacccca gggagctcga cggagacagg aagttaaaaa 40200
tagatgcacc gcttccccgt cggtgtgggc agcttcttcc ttgccctcac acaaggggggc 40260
ggcagaggcc aaggccaggt gggggctgcc cagggacctc cgaaccagcc caggcccagc 40320
atcctctggc atccttgaca atcagatggg ggacaggagg ggtctgagat attagagcca 40380
tcagggctgt ctttcctaga ctaggacttg gacactgtgg gacccttgct gacggccagc 40440
gagccctggt gtcaagggga tggatcacct ctgtcctcct tcctcccaaa gagctgatcc 40500
caggaatcca ggaaggggcc aacgagaggc agaggcctac cgtgggggca ctctctgggc 40560
agagctcccc tctagggcct gaggggacat gtcccatgga tgcaggacat tcagaggccc 40620
ccacaggcct ggcaggagga gagctgcagg cagggccagt tgtgaaattt gtggggtcta 40680
gtgcgaaata aaaatgcaag gctctttatt caaaatttat caagaatttt gggccaggcg 40740
cggtggctca cgtctgtaat cccagcagtt tgggaggccg aggtgggtgg atcacctgaa 40800
gtcaggagtt ccagaccagc ctggccaaca tggtgaaacc ctgtctctac taaaaattag 40860
ctgggcatgg tggcacatgc ctgtgatccc agctactcgg gaggctgagg caggagaatc 40920
acttgaaccc ggcaagtgga ggttatggtg agctgagatt gtgccattgc actccagcct 40980
gggcaacaag agcaaaagtc cgtctcaaga aaaaaaaaaa aaaaaatagc cagtgtggtg 41040
gcccatgcct gtagtcccag ctactcagga ggctgaggca gaagaattgc ttgaacctgg 41100
aaggtggagc ttgcagtgag cctaaattgc accactgcac acctgggtga cagagcaaga 41160
ctctgtctca aaacacacac aaaaaaattg tattaagaat ttctatttgg tgccaggcac 41220
agtggctcac acctgtaatc ccagcattct gggaggccga ggcaggtgga tcacctgagg 41280
tcaggagttc gagaccagcc tgaccaatat ggtgaaaccc tgtctctact aaaaatacaa 41340
aaaaaaaaaa aaattaactg gcatggtgag gcacacctgt aatcccagct actcaggagg 41400
ctgagacagg agaattgctt gaactcagga ggcggaggtt gcagtgagcc gagaatatgc 41460
cactgcactc cagcctgggc aacagagcga gactctgtct caaaagaaaa aaaaaaatac 41520
aaaaattagc cgggcgtggt ggcacgctcc tgtaatccca gctactcagg aggctgaggc 41580
aggagaatca cttgaacctg ggaggcggag gttgcagtga gccaagatcg cgccattgca 41640
ctccagcccg ggcgagagag agaaactgtc tcaaaaaaaa aaaaattttg ggaggctggg 41700
gtgggaggat catttgaacc aaggaggtca atgctgcagt gaatcgagat cgcaccactg 41760
cactacaacc tgggcgacag aatgacaccc acaaaaattt ctagagcaca acagcagagc 41820
gttcaatcaa agtacagagc acaggctaca cgctcatgaa gccgcccttg ggtacagggt 41880
ctgcagaccc tacccctcct tccagaccac acaagggtcc ctacagtgct tcagtggacc 41940
agccccactc cagggcacac agctgggaga gggtcacctg ggccggatgg ccccctggcc 42000
aggtaacccg cacagctgac cttcccagcc ttgattacag acccctgcaa gaaagtgggg 42060
gactctgata aagcccagga agaggcagct cagaaatggt taagttgaga aacagcatca 42120
tttcctggcc ggtttatact taacccccctc tttgcagcac ttatggagtg cctgctgtgt 42180
gcctttctca ggcagcaccc actctttctg ttctctgagg cttggagttg gggcactgag 42240
cactaactgc tctggagcct gggtcaaatt cttctcgtct tggggcatca acttaaaccc 42300
ttcccaggct cccctccact gagaatgtgt ctcaaggcct cactgcagcc catgaggctc 42360
cgcagggtcc tcctccctcc ctgactgctg tcacgcatgc cagccgcaca cctgctttct 42420
gtcccttaaa gctcattccc acccaggaca tctgcactcg cagctgcctc ccgccgccga 42480
aggcttcccg gcccaccccc atctgcacac gcgcagatcc acttcttctg tcccttcctg 42540
cctccactcc ccatgccccc gtctcgtcag gctctcccag gagaccatgg gtgccctccc 42600
ccacccccag ttcagttccc tcacagcact gccaccagct ggatctgtct caattatcac 42660
tggcttattg tttgctgcca tcagctccca ggacagcagg gcctgggtct gtccccagag 42720
cccaggacag ggccagagta ggtgctccgt gaatatctgc tgcgtgaaca gggattccta 42780
aggtgcttcc agctgggaca ctccaggatc ttaaccctgg ggtcccggca ccaccaccca 42840
tgggaaggga gcccccaggg aaaggttagt gagctgggag ggctgacctc agggggggtgg 42900
aggtggggtc ctatccccgc agcaaatgcc cctgggaagg agctcaggga gcacacacag 42960
gagggacctg gcctggtctg gagctcaggg gtcctccccc aggacctagc aggaagccaa 43020
tgcctgcagg tgattcaacg ggaactggag gtggaggagt ggggtaggag ctccagcggg 43080
aggacacaca tgtgctgagg ccctgaggcc gggaggggag ggaggtaggc tgctggggcc 43140
aggtcccagg ggcctctagc caggagggcg ctgggtttat tctaagtagg ttgggaatct 43200

ttgcagggtt tcaagtcggg gaagagcatg gtgggatttt attgttgact gactcactga 43260
cctactgagt tctgcactct gctctggctg gggaccccga cctgtccacc ccgttggctc 43320
agacagacag aggtttggcc ccttcaggat gtcgataaac tgccccagtc cccaggcctg 43380
cctgctcgta aatggttccc tgggggcttg cacagtgcct ggcatgaggc cctggagcga 43440
gggggcagca ggcctgagct catcgggctg tggcctccag aagcagaaac aaccttcctc 43500
ccagggactt agtacctaaa gccggaggag acacaggacg gggcagcagg cagggcctgg 43560
cccggccagc acccccaggg aactcagcca cagggtcaat gctgcccccc aggcccatct 43620
gtgccaagcc tgctccctca tccggtaacc ccccacagca ccagctgcac cggctgctgg 43680
ccctgcctcc ctcgtggttc cttcccgaca gccccgtgag cagggtgcac ccacaattcc 43740
cattgttcag atgaagacaa ggctgaagag gtgaggtcac ttgccccagg tcacagagcc 43800
agaagaggtg gccccattgc ctagtcttcc agacaggaag aacattcctt cccaaccccg 43860
cccgtggaag acccaaccct gggccagttt tgctgtgtga ccttgggcca gtggctccac 43920
ctatctgagc ctctggtttt ttggtttttc ttttttggtg tttttgtggg ttttttttgag 43980
atggcatctt gctctgtcac ccaggctgga gtgcagtggt gtgatctcgg tacactgcaa 44040
cctccacctc ctgggttcaa ataatcctcc cacctcagct ttccaagtag ctgggattac 44100
aggcatgtgc caccacatcc aactaatttt tgcatttta gtagagacag ggcttcaccg 44160
tgttggccag ggtggtctcc aacttctgac ctcaagtgat ccgcccgcct tggactccca 44220
aagtgctagg attacaggca tgagccaccg tgcccagccc aattttctgg tttttcaaaa 44280
aaatttttgt agagattggg ttgtgctatg ttgcccaggc tggtcttgag ttcctgggct 44340
caagtgatcc tcctgcctcg gcctcccaaa gtgctgggat tataggcgtg agtcactgtg 44400
cccagccaga gcctcagatt ttttatctgc caagtggacc tgctaagctc aggcagatca 44460
acttctggag actttgaaat gataactgtt caggtttcaa ggaaatgata ggtttatccc 44520
aacactaaga aactctgtct ctctgtctct ctctcaatct caatctctct ctctctctct 44580
ctctctctct ctgtctctct cgggctgcaa gccggcctga gagtgggcct tcgggtctct 44640
ggcagcagga ggaggatgac cctgcccttc cccagcccat taacaagccc cacccctgca 44700
ccccgaaaca ggacacgggg ggaacttacg cgatcctccg gctctgtgca ctgctgaagc 44760
ctgcgaagga ggcgctccgg cccacgaccc ccacggcccc tgtgtcccca ggggacagga 44820
accgcaacct caccgacatg gtggtcacct gcaaggagag gacaggagag tcagcctggc 44880
atcaccatcc agcgagtgcc gtccgcaggc cagccacctt ccaccaacac ctacagacct 44940
cacaatggcc ccagagtgtt gtgggggctg gtactgtgcc cagctcacag gtcagcaagc 45000
tgaggtccca tgaggttagg ggacctgatg ggggacagtg atgggaatgg aattcgaacc 45060
caggtgtctg tactctgcac tctgtgctca ggtccttagt gccgggcaat gctgcctccc 45120
agagcaaggg gacagcacct cctgaacaca gccctctcac cccccgagct tctcctctcc 45180
cctcctccag ccctccctga gcacctaaca caggtgaact ctgcaaggca ggccaagtcc 45240
ccccatcctc aagggctcca gcccagcagg gaggcccacc tactgccgaa cagttacgat 45300
acagagtcca tgctggagtt atgggggtcc caggggaat ctgacccagc catgaagagg 45360
cgcccaagag ctgagtagga aggctgacgt ggggtgaagg ggaagggtgt ctaaggccga 45420
gggaacagcc tgggcaaagg ccaggatgca tgaggggact tggtgtcatc cagaaacagc 45480
aagaagctca gtgggctaaa gacgaggtca gagaggccgg cagggctcag gtcccaagag 45540
gcattggtag ccccaagcag gggcttggcc ttacaatggg gcaagggtga ctgggagcca 45600
tgggagggct ttcagcaggg ggtggaaaag tccaattcac atgaagccag actgctggtg 45660
tcaagggctg cttccacccc gatccattgc ccagtctccg acccgccctg caatggggcc 45720
aaccccgagc cctggctgtc ttctcttttt tccaaaccat ctctagattg agaaaatgcc 45780
accctatccc ttgggaatat aggtcagcat cttccagcaa gggcagctgg aaagttctgc 45840
ttcatatcta acctaaatct ctgctgctac agtttcatac tttgctcctt tgccagggtg 45900
gtgtcaatcc aaggattcca gggaccccat tgcccagaca aaacctacga aaaagctcca 45960
gtccacctca tcttcctgca cgatgagacc cccatgttcc aacatctctt tcccccaggg 46020
gccaagtcca ccccactaca cctctgctca cttgggggtc tctgcctgga aaaacttcct 46080
gtatcgagcc acatctgccc agcatctact actgcacctc ctggcagatc tgtgcagcct 46140
ccacaagcct cctcctccca tatatccccc accccacagc cccacatgtg ccgtacatag 46200
gaaagcttgg caacaaagaa ggtggacctg ggctcaaatc ccaactgtgc cactcaggct 46260
ctgggcctca gtgatcacaa gagtaaaagg ggaattcaga aagaacctcc cacggagact 46320
gctggaagga ccaaggaaag catgtcccga gagcccacag tgtgcaagag acatgtcgga 46380
agagctggct gtctctgtgc aattggctaa gaccccagct ctgcaggtga gccaggtgac 46440
ccagataagc caggtgaccc agggagagcc aagtgagaag tgagcggctt ctagcccgga 46500
tggaggaagg tggcaagcat ttgctgacca ctcgctgtgt ggcaagcctg gtgccccatg 46560
agtggctacg aatccatgaa cagctatgaa cccatgccca gcagtgctgt gtacagatgg 46620

ggaagttgag gcatcattca tcaagtgctc attactaagc tggccctgca ctaaatgctt 46680
tatgtaaatt atgaaatcca tacaaccctc ttaagagcag gagcttttga tgatctaatt 46740
ccatagatga ggaaactgag gctcagagag gtgatgagac tagcccagga gccccagcag 46800
ggcacctgag cactgggttt agaacccgag gatgcccgat gtcagagctt gtcttacctg 46860
cggtcaggag agccttgcac tggggccttg cccctgcccc cataaagagg tcccctacag 46920
tcccctcctg tgctgtgctg agccagcttg taccagctcc caacagtcaa ctgggccagg 46980
cacagtggct cacacctgta atcctagcac tttgggaggc cgaagcaggc agattgcctg 47040
agctcaggag ttcaagacca gcctgggcta catggtgaag ccccgtctac taaaatacaa 47100
aaaattagcc aggcttggtg gcaggcgcct gtaatcccag ctactcggga ggctgaggca 47160
ggagaatcac ttgaacctgg gaggtggagg ttgcagtgag ctgagatcat gccactgcac 47220
tccagcctgg gcaacagagc aagactctga ctaaaaaaaa caaaaaacaa aaaacaaaaa 47280
atagtcaatt gttaaatgtt caggaatttt gtgagcctgt tgacatcacg ttggtggttt 47340
gaaatcagcc acagtaaacg tatttacacc acagaaagcg gcaagttcta caagttaggg 47400
tttctgtctg ctggttgtta aacacgtatg agctcctcac tgctgttacc cctatcagca 47460
cctatgcagg gcctgagaag ctgctcaaac tgcttgatcc ccccagccaa gccaggcaag 47520
agaataagga cggagtaggg agggattccc aaaggtgagt agttgagacg tactccggag 47580
ccagcctggg cactggagcc ggaaggggct tccccggccc ctccctctgc accttcccat 47640
cagaagcctt ctgggccgtt cctggagctt caccccagtc actccacttc aaggtcagag 47700
agaaggacaa ttgctaagca gttcctcccg atgcaaagct caaaacaagc cccaggtcct 47760
cctgctcagt gtgagagaga ggacgacgaa ggagggaaac taaggctcgg agcagacctg 47820
cagaacctga cagcggattc atcactcata gcactgtgag gttcaatggc cccatttttc 47880
atatgaggaa agaaaggctc tgagaggtga gaggcgactc agggacacac atatttcttt 47940
ctttatttcc ttttccttct ttctttcttt tctttttttt ttttttttt ttagacaggg 48000
tctgactcta ttgcccaggc tggcgtgcag tgacacgatc tcagctcact gcaacctcca 48060
cctgctgggc tcaagccatc ctcccacatc agcctttcac gtggctggga ctacaggcac 48120
acaccaccat tcccagctaa tttttgtatt cattgtagag atagggtttc gccatgttgt 48180
ccaggctgtt ctcgaactcc tgagctcaag cgatccaccc acctcagctt cccaaagtgc 48240
taggattata gccgtgagcc accgcgcctg accaggacac tcatttttca aactgaagtc 48300
tggctcttcc ttcttccacg tgccatggcc acatggattg gcttcctggc taaaccctcc 48360
tcatctttca gcccagatgt cccctccccc aggaagcctt cctggacacc tccccactcc 48420
tagctgtgtc tggtgtttcc tctggatgcc cctgacctcc tctgttatag tggactgtga 48480
atggtgactt gtctatctct ccatcctaga cagggagctc cctgcaggca gggaccaggt 48540
gcatggaaga ttcataacac atctttattg aaccagaaaa caatgaagga aaggttgacg 48600
ctgcttcccc tacttcacca ggctgtgcag cccaagagga aggtgctgga ataataacag 48660
taatactaat actaataacc actatgtgct agactctaag gcaaagatgg acaaatgttt 48720
tctgtaaaaa gccagataga aaggctgagc gcagtggctc acacctgtaa tcccagtact 48780
ttgggaggcc aaggtgggtg gatcacctga ggtcaagaat tcaagatcag cctggacaac 48840
atggtgaaac cctgtctcta ctaaaaacac aaaaattagc cgggcgtggt ggcgcatgcc 48900
tgtagtccca gctactctgg aggctgaggc aggagaatca cctgaatccg ggaggcagag 48960
gttgcagtga gccgagatca agccactaaa ctccagcctg gacaacagag ctagactcca 49020
tctcaaaaac aaacaaacaa acaaaaagcc agatagtaga tatttttggt ttttcaggcc 49080
atacagtttt tgtcacaact actcagttct agcattttag agcaaaacca gctgcagaca 49140
ttatgtaaag gaattatgcc atggctgtgt ttcagtaaaa ctttatttac aaaagctgca 49200
gcagctgttg aggatgatgg gtggccctgc ctctgaccct tgggtagcca gcactgcctg 49260
ctacctgctc tgaggactta aaattctcat ttcattctcc caacaccata tgagacaagt 49320
actattacta tccccatttt gcagataagg aaaccgaggc tcatgccagg cgtggcgact 49380
cacgcctata attccagcac tttgagaggc tgagatgggc ggatcacttg agcccaggag 49440
ttcgagacca gcctgggtct catagtgaga cccggtcccc acaaaaaata caaaaattac 49500
ccagatgtgg tggcgtgcac ctgtagtcga gctactgcgg caggctgagg tgggaggatc 49560
attagagacc tcccagcaag tcgaggctgc agtgagctga gactgcacca ctccagcctg 49620
gctaacacag tgagaccctg tctcaaaaga aggaaaggaa ggaaagaagg aaaggaaaaa 49680
ggaaaggaag aaaagaagga aaccgaggct cagagaggac ggaaatgagt cctccgaggt 49740
cacacaggta ggaaatgcca gagctgaaac tggaccgggg cgcgctggac tccaaagcct 49800
ggcttcggga ctccgctgtg cttgctcccg cagctctgct gaggacacgc ccccctccca 49860
ggagccagac ctcctccagc ggggaagagg ccccagaatg gaaataggat tgggaggggg 49920
acctgccaag ctagaaagat agccctgggt ggtggccgag aaaaatcaag cccaacctct 49980
tttggcttca gggtgttgca gccccagccc ctgtgggccc ccttggggcc tgcggaccgc 50040

gacagttccc aggcagctca gctgcgcccc ctcccggctg ggcctggtgg ggctgatcca 50100
tgacgttgac ttggagtcca gccaagcagt gtttcttgtg gtaaaagaaa cagacctccc 50160
cctggatgat tggggatggg atggccaggc tgagacccac aatctcagga gccttcagcg 50220
gacagctcct gacaagtcca gtttgtcacc tgcgaccaag ggtgacattc ctgatgttta 50280
agcaatggca cagcagcaaa tggaggctgg gtgctggagc agggtcttga agaccctgtc 50340
ccctcccacc atgtgtcacc acccctgctg gggctggcat taacccttta gctactggat 50400
tgtgggcagg tctaggaggt ccctggggag gcatcaggaa gagaggagga atgctcgggt 50460
ggcttagggc agccctgggt aaccagcact ctgcaggcat gagagacagt gcagagaccc 50520
tgctgggccc cagggcagag aagggaggca cagagtcatg cagttcccaa acctttggtg 50580
gcagacagga cagcctcttc tactccgtgt ccctcgctgc ctctctctgg cctggcactt 50640
agaactgatg ccgttcagac ccggctggtg tgtgcaggga gaggaagcca gatgctccca 50700
gacactgggg actgtcctgg gcctccgtcc ccaaggtgtg gctggaggaa gcagagtcta 50760
ctcccgctaa gtctgtccgc tcactgctgg ccaaagctgc cctgcgtctc ctccccaccg 50820
ccagccagag ggaacctgca atttcacctc atttagaggt aaaacatcta aatttaacgt 50880
tatgggcttt tggggctggg tggcttttat gcctgagtcc ctcacttagg gctccttttt 50940
atccactcaa atgccagcta gggcttagtt tgtttatagg agtttccaaa atagctcctt 51000
tggtttcgca tgaaaggaaa tggcaaaata gcccaggaag aggaatgtga gtttacacag 51060
aagacagaca ggcgcccgag gaggcttctc tgggaaccag ttcgcctgta ccagaggggg 51120
cccgagaaag tgtggagtcc aacagtccaa ctcgctcatt ttaccgatgt caagactaag 51180
cccaggatgg tcacacaact tgcctggacc acccaaaggc gactggaaga gccagaagaa 51240
cccaaactac tcctccctgc caaagcacag gcctcagctg gagcccccct ccagcctttg 51300
ccctggctgt gtcctctgcc tggcacacgc ctcccttccc ccaggtcttc cctatcactc 51360
tctcccagct tgcaggcctc acaaccaagg ccacctcctc agagaggtcc tccctgaccc 51420
ccttggctaa cgtggacttg ccctcaccc gtatccttca aataactcat ggttctgatt 51480
gtcttattca tcagttaatc aagtatgctt ctcaagaatc ttcgctccag ggagcagggg 51540
gtttttctgt ctttttaaaa aaaagttttt ggggccaggc acactcctat aattatgggc 51600
tcacgcctgt aatcccagca ctttgggagg ctgagtctgg tggatcacct gaggtcagga 51660
gttcaagatc agcctggcca acatggtgaa accccatctg tactaaaaat acaaaaatta 51720
gccaggcgta gtggcgggct cctgtaatcc cagctactca ggaggctgaa gcgggagaat 51780
tgcttgaacc caggaagcgg aggttgcagt tagctgagat cacaccgttg cactccagcc 51840
tgggtgataa agcaagactt cgtctcaaaa aaaaattttt ttaaataaat aaatacataa 51900
attattatta ttattatttt tatagagatg ggtcttgtta tgtcacccag gctggtctca 51960
aactcctggc ctcaagcgat ccacatggtg tgagccacca tgcccagcct gctggttttt 52020
aaagagcata tttaaatgaa aagagacaaa tttaaaggac ccttggttta aatagagcag 52080
gttggaacca gcttcagggc agcccatggt cctggctctg ccatcctcca gaaccacctg 52140
gagccaggag gggacaccca aggtgtctct gcagaggaca gcggcctgac ggatagacac 52200
acaatgagtg ccctgatttg tgatttaaga gaagaacaag cagctccttg ggaagcccca 52260
gtgtcccctg cgctccactg tcccaggact gcaggcaaag ggacgcctcc tgaccgcaga 52320
atagtcaaca gcaggcacgg gagtgaggac cgggatccag ggaggccgct tccctctgtc 52380
tatcagtctg cagccctggg tcccagctca ctccattggg gttttcccag ataaagatga 52440
ctcatgaatt tctttgaatt atccagaggg cattttaatt caaatggccc catcactgcc 52500
tcgtcaccac tcccaccagc catgccaggg gtcagccagg ggtcaccttg aagacaaagc 52560
ctctctttgg gaaagaagcc tttgaggcca ctgtggggtg gctgtgtgtc ggggcgccag 52620
gtgggaaggc agctggggcc tgcccaggct agggaagaga gcgtgggggt gtgggggatg 52680
aaggaagata aagatggggt agcgggaggg agcgggggaa gctgggcctc caagaagcac 52740
aggctgactt gggaatccca tctcaaacgt gcctcaccct ggtctccagc tgtaggagca 52800
gtgataagga tgaggacagg caggagggac tgagatgaga tgagagcatt tggagcctgg 52860
agagagaccc ctgacactga gggagtgagg tgacctggtg gtggctattc caggccaagc 52920
acctttgttc aactgtcaaa aactagaaac aggccgggcg cagtggctca tgcctataat 52980
cccagcactt tgggaggcca aggtgggtgg ataacttgag gtcaggagtt tgaaaccagc 53040
ctggtcaaca tggtgaaacc ccatctctac taaaaacaca gaaattagcc aggtgtcgtg 53100
gtgcatgcct gtaatcccag ctactcggga agctgaggca ggagaattgc ttgaacccag 53160
gtggcagagg ttgcagtgag ccaagattat gccactgcac tctagcctgg gtgacagagc 53220
gagactccaa ctcaaaaaaa aaaaacctga aaacagcaat aatgccagtg gtacccaaca 53280
cggctacagg acttgtgcag tgccaggcat tgctcaaaga attcactcat tgaattcctg 53340
gtacccagga agtctggcct caagcctgag ctctgccccc gctgagcaga acccctcttt 53400
ctaaaccccg gacactgggc tggacacaca gcctctcact caccccaca gctccccggg 53460

ggcagggcac tgttaccatt gtacagacca ggaggctgag gctcgagatg gagccacctg 53520
aagtggcaag ttggtagcat tgtacctcca atgactcacc aaaacgcctg cataaaaatc 53580
caggtgcagt ggcactcacc tgtagtccca gctacctggg aggctgaggc aggaggagca 53640
cttgagccca ggaagtttga ggccagcttg ggcaacacca tgagccaaaa ataaataaat 53700
acaatacagg taaagtgctt gtgtataggc agtgtggtgc aggtgtgtgt acgcctgacc 53760
taggtcccag gagtgactaa gggacacgca gagtggggct ctccaatcag aagccctcac 53820
tctggaattg gttatgggag ggtccctgga cctcagcatg taatgctttg ctgtggaggc 53880
tgtcctgtgt gttcagcagt gtccccacac caggagcaca gcctgtgaca gcctggcaca 53940
tctccagaca ctgccacacg tccctgtgct aaaggcatct cttcggacct gggctggagg 54000
gttcattaac ccgtatggtg gcttaggcat aattttccat gggcgaaatg agtagtattg 54060
aagacactat ggtatttggt tggctacagt attgctcggg caccttcccc tcacacgaac 54120
aggtgtggga ctctggcaga ccacacagcc tgacacctac ggagcggccc tgggtctgcg 54180
gctcccacag ggcctctgcc actccagccg tgacacacac acatgctgtc accagcctag 54240
gatgtgcaca aagcctgtag gtctgagacc aaggacatga gcttggagga gctggctgga 54300
ttcctcagac ctctggggcc cgtttgccag agcagagccg agacctgcct gagacctgcc 54360
ttcattgcaa ccctggccct gtggcacggc tgcaagggag gagagaccgg gtgaagggct 54420
gcttccccct tccatccaaa aacacacaaa caaaagacgc ctgagcttgg tgaacacacg 54480
cactggtcag gcttagctcc atgcggggag gatgtaaatt caaacccagg tgggctgaac 54540
tccaaagcac tcttcggcca accactggtc actggaatga actgccccca accctctgtc 54600
atctcgggga cacagaccct gccccctctcc gcagggctgg acagcagagc agcttccctc 54660
tacaaaacgg tcaaaaaggc aaagaaagac ttccacaccc tgccgctgcc tgggagaacc 54720
ctgagcttcc tttctgcagt gacctctcca ttagacgcac aggcccacgc atgcgcccac 54780
gaacacatgt gaattacttc taggatcaga aggcaaaaaa atgttcttta ggtcaaagaa 54840
aatgtgttat tatataagag taatgtattc attgttatag caagttgtaa tatgcacttc 54900
ttttttttt ttttttttga gacggagctt tgctcttttt gcccaggctg gagtgcaatg 54960
gcgcaatctc ggctcaccgc aacatctgcc tcctgggttc aagcaattct cctgcctcag 55020
cctcctgagt agctgggatt acaggcatgc accaccacgc ctgggtaatt ttttgtattt 55080
ttagtagaga cagattttct ccatgttggt caggctggtc tcaaactcct gacctcaggt 55140
aatccgcctg cctcggcctc ccaaagtgct gggattacag gcgtgagcca ccacgtccgg 55200
ctcacttctt ttttttttctg agagagagac agggctcact ctatcaccca ggctggagtg 55260
cagtggtggg atcacagctc actgcagcct tgacctcctg ggttcaagcg atcctcccat 55320
ctccgcctcc tgagtagctg ggactacagg tatgtgccac tgcacccggc taatttttt 55380
aaaatttctt tagagacagg gtctctctat gtggcccagg ccagggtgca gtggtgtgat 55440
catagctcac tgcagcctcc aactcctgga ctgaagcagt cctcccacct cagcctcatg 55500
agtagctggg actacaggtg tgagccccac acctggtcct atttcttatt ggaagggcca 55560
ctgcaggcca agatgctcgg tgcccaggga agtcatagca cggccctgcc cttgacccct 55620
tccagccatc ctgggaatct gtccccagcc acctccaggc cacaggctcc ttccccatct 55680
cttccccacc caggagctgt gttacacaga tcactttagc gtttcccacg ctaaaccact 55740
gaaactgagg gttttatctc ccactctcct tgctcccagt tccgcatggc cactggcctg 55800
gctgagacag agccgctgga agtgcccggc aggacctctc acttgacctt cagcctctta 55860
cttaaccctc ccaatgcagg gcggtagcct ccactgggtc ctgttcagcc cctactccta 55920
gaaatggtct ggggggtaag ggtggggccc cctgcagagc ccttggatgt gtgtttgcgc 55980
catggcagta gtacacccac ccccttctgc ttccgcagaa cctggccggc tcctccccat 56040
cccaggggga gaggctcctc ctgctcccac ttccctcctt tacatttggc tactactctt 56100
aggggtgggg ctttgtttac tttgcatttt cctgattcct aatgagatta agcacatttc 56160
cttaggttta ccggcttccc aatctcctct tctgggaatt ttcagtgcct attcctttgt 56220
ccagttatct gccttcttct tcttgattgc tgggagcggc tgataaatcc tagatgacca 56280
tcctttctca gttttctccc agcccctcac cttttaatct taaattgttc tctgtgggtg 56340
tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg agagagagag aaacagggag agagatacaa 56400
gcttcaaata cttatgtggc caaatccgtc acaggttttc cttctgtgtt ttacaatttg 56460
gaaactgctt tctggtctct aagattaagt tgctaatctg ttaaccactg gtgtttaatt 56520
ccctgggggа gaagcttgtc ttcccagcca ggctgcaaag tcccccaggg tatgtctcca 56580
tctcccccct ccccccatga ggccttagtc aagagattcc actgctcctc agaaataccg 56640
tgaatttgtc ccctccttcc tgcctccacc cctgctcgcc aggaccaatc tctgcctccc 56700
tctcaccctc tgccccacat gattaccaca gtgatttaaa aaaaaaaaat ccatcagagg 56760
ccaggtgctg tggctcacgc ctgtaacccc agcactttgg gaggtcaaag cgggcagatc 56820
acctgaggtc aggagttcga gaccagcctg accaacatgg agaaaccctg tctctactaa 56880

aaatacaaaa ttagccgggc gtagtggcac atgcctgtaa tcccagctac tcaggaggct 56940
gaggcaggag aattgcttga acccgggagg cagaggttgc ggtgagccga gattgcacca 57000
ttgcactcca gactgggcaa caagaccgaa actccatctc aaaaaaaaaa cccaaaaaga 57060
atagaaaaat gtccatcagg gctggatgca gtggctcaag cctgtaatct cagcactttt 57120
ttttttttt ttgagatgga gtctcgctct gtcgcccagg cggaagtgca gtggctggat 57180
cttggctcac tgcaaccttt gcctccaggc tccagtgatt ctcccgcctc agcctcccaa 57240
gtagctagga ctacaagtgt gcaccactag gccaggctaa tttttgtgtg tgttttttt 57300
ttttttttag tagagttggg gtttcaccat cttggccagg ctggtctcaa actcctgacc 57360
tcaagtgatc ctcccgcctt ggcctcccaa agtgtgggga ttacagctgt gagccaccat 57420
gtctggccaa atcccaccac tttgggaggc cgaggtggga agaccgctta aagccaggag 57480
tttgagacca gcctgggcaa cacagagaga cccatctcta caagaagtga aaaaaaaagt 57540
tgggcacatg ttctcaggac cccctgaggc tatgtcttgg gtcatggtca ctcataaata 57600
aattgtttta attaaaaata aatgttgaaa aattagctga gcatggtggt atgtacttgt 57660
agtcccagct aaggcaggag gatttctttc tttctttctt ttttttttt tttttgagat 57720
ggagcctcac tctgtcgccc aggctggagt gcagtggtgc aatctcggct cactgcaagc 57780
tccgcctccc gggttcacgc cattctgcca ttctcctgcc tcagcctccc aagtagctgg 57840
gactacaggc gcccgccact gtgcccggct aatttttgt atttttagta gagatggggt 57900
ttcaccgtgt tagccaggat ggtctcgatc tcctgacctc gtgatccgcc cacctcagcc 57960
tcccaaggtg ctgggattac aggcgtgagc caccgcaccc agctgggagg ctaaggcagg 58020
aggatttctt gagcccagga gttcaaggct gcagtgagcc aggattgtgc cactgcactc 58080
cagcctgggc aacagaatga gaccacatct ctaaaaaaat ttaaaaataa ataaaaaata 58140
aaaatgtccc ttagtttgtc actatattgc ccaggctggt ttggaactcc tggcctcatg 58200
taatcctccc agctcagcct cccaaagcgc cgggattaca ggcataagcc actgcacctg 58260
accccaaccg aaaattctta aggcacattt ttgacactaa aaacagtatt ttataactgc 58320
taaaatagat atgttaattc tagtcttttc ttgtgcacag aaacaaatta ccactttagt 58380
ttctcaagga gcacatgtat acatgttaaa tgcattaatt tgtttaatat aaacatgaaa 58440
tacttttttat aacctggatt ggtacatatt tcttttcttt tctttttttt ctttgaggca 58500
agatctggcc ctatcaccag gctggagtgc agtggtgcaa tcttggctca ctgctacctc 58560
tgcctcccgg gctcaagcaa tcctcccacc tcagtctcct gagtagctgg gactacaggc 58620
atgtgccacc atgaccggct aatttctgtt ttgttttttt ttgtttgctt ttttttttt 58680
ttttttttt ttttgtagag acggagtttc accatgttgc ccagactatt ctcaaactcc 58740
tgggctcaag cgatcctcaa cctcaacctc ccgaagtgtt gggattccag gtgtgagcca 58800
ctgcacccag ccctttttatt tatttttttat tttttatttt ttttttttga gacggagttt 58860
cgctcttgtc acccagactg gagtgcaggg gcgcaatctt ggctcattgc aacctccacc 58920
tccgtggttc aagcagttcc ccggcctcag cctcccgagt agctgagatt acaagcacac 58980
gccaccaagc ccagctaatt tttttgtatt tttagtagag acagggtttc atcatgttga 59040
ccagcctggt ctcaaactcc tgacctcagg caatccgcct gcctcagcct tccaaagtgc 59100
tgggattaca ggcatgagcc actgcgcctg gcccccattt cttattatac agtagtttac 59160
aaaaaaatcc cagcagccag ctccagagag gccttgttct gtggtgtcta aggatggagc 59220
ccaggcaggg acggccaaaa gctcgctacc cctgcccagg aaggcaggag caccgttgtg 59280
tcccgttcct atccctcaaa aataaatcac agccagctca tgtcatagga cagagcctgt 59340
tcgcaatcca tcctgtgtct gcggattctc ccaggtctgt aaggcagcag ggagatgcgg 59400
cctctcccac tccacccaac acgtagccag ggcgaggtgg ggccgggggа gaggctgaca 59460
ttcaaaggca tctgagtggt aagaggtgag cgagtgaggt gaatggggac tacgttagaa 59520
ggaccctacg ttagaagggt gaggcgctag ggccatagcc taagggcact gggaaccctg 59580
tgggcatgcg cagttcaagc ccatccccgc tccctccagc tgctgtccat ccctgccaca 59640
cctgaccatt tgcctaacct agatccttcc tgtcttgcat ttcctcaagc atccggagcc 59700
caggactgct gagtcaaccc tctggaatgc ccacaactcc ccacaggcca gccggccttg 59760
ggactcccgc acagccacgt gagccggtgg agccgggtct gtttgctagt ggaggctgtt 59820
aacagcacgg gaagtggtca agggttcaac aagagatgag ccatctggtc ctccagaggt 59880
aaacaattta caagagacac atcaagccgg cctgctgttc tggtttttct tttgacagtg 59940
aaatatgcag tttctttttc atcctggtgc ctattggaga gggagactgt tccaggcact 60000
ctgaccccag ctaaagcgcc tccctggggc aggatctatg cagggaggca gaaaagtcag 60060
attttttttc acatcttctt tgttccattc ccaggactga gcaacttcat gtatttatgt 60120
atttatttat ttatttatag acaggttctc actatgtcgc ccaggctgga gtgcagtggt 60180
gcggtcacag ctcactgcaa cctcaatgtc ctaggctcca gtgatcctcc tgcctcagcc 60240
tcctgagtag ccgggaccat aggtgtgtac caccatgcca ggggaatttt tgtatctttg 60300

gttagagaaa gggttttgct gtgatgttgc ccagtctggt ctcaaactcc tgagctcaag 60360
cgattcaccc tcctgggcct cccaaagtgc tgggattaca ggtgggagcc actgtgcgtg 60420
gcccaggact gagcaacttt aagtcagatg gttaacctac atcatgagga aagtggattt 60480
cctcccaaag gaacagactt attttctaga acccaaagcc ttgaatttca agaaccttta 60540
gccttaaatc catttcctgt tggaagcaga ccccctcctg gtctccccag gtattgcaac 60600
cctgctctac cagccactat aaatgcccac acaaaaggaa caggggctcc attcctgatg 60660
ctcagagtgg agtcactaga ttctcaagca tatgagatat gtatgtggcc taacagcctg 60720
aaataaacag cttgtgctgg gattgtaatt ctagagtttc caaaagtgtt gcaaaatatt 60780
ccaggcagac actaaagttt gtgtactaca agctgtttat taattaattt cttatttgcc 60840
aaacattctt gcttgggtct actgggagat gatttcgttg ggaatgcatc tccaattttg 60900
taataaagat caccagggaa agaaggcttg cttcataggg gctcatatta caggaaatgt 60960
ggctagcata ggtagttccc ataagaaaaa ggacagtact aagttttgag ctcatgtgaa 61020
aaagaaaagg gggccgggcg tggtggctca cacctgtaat ccgcactttc ggaggccgag 61080
gcggacggat cacttgaggt caggagttca agaccagctt ggccaacatg gcaaaaccct 61140
gtctctatta aaaatacaaa aattagccag gcgtggtggc ggacgcctgt aatcccagct 61200
acttgggagg ctgaggcagg agaatcactt gaacccggga ggcggaggtt gtagtgagcc 61260
aggatcgcat cactgtactc cagcctaggc gacaagagcg aaactccatc tcaaaagaaa 61320
aaaaagaaaa gtgacgtctg gggaccagga ttttgggact ctttgcagac atgccaataa 61380
cctgtgagat acacacccac agactgacac agaggtgagc agaggccttg gagtcaacag 61440
aagttcaagt ctagcctttg cctcattctc ttttttttt ttttttttt ttgagatgga 61500
gtcttgctct gtcacccagg ctggagtgca gtggcgcaat ctcggctcac tgcaagctcc 61560
gcctcccggg ttcacgccat tctcctgcct cagcctccca agtagctggg actacaggcg 61620
cccgctacca tgcccggcta attttttgta tttttagtag agacagggtt tcaccgtgtt 61680
agccaggatg gtctcgatct cctgacctcg tgatccaccc gcctcggcct cccaaagtgc 61740
tgggattaca ggcatgagcc accgcacccg gccacctcat tctcactatg tgaccttgga 61800
caagtcactt atcctctttg agcctccagt tcctcatcta tacattggaa gccactgaaa 61860
ttatcttaca gttactttca gttgcgagga cttgctcttt ttctcttcat taaaaggaaa 61920
acacaaaata taatttatag cttatcctac cactttgtgc tgctaaggtt aaaatccagg 61980
gtagtggcca ggcgcggtgg ctcatgccta caatcctagc attttgggag gccaagacgg 62040
gtggatcacc tgaggtcagg agttttagac cagcctcacc aacatggaga aaccccatct 62100
ctactaaaaa tataaaaatt agctgggtgt gttggtgggc acctgtaatc ccagctactc 62160
gggagactga ggcaggagaa ttgcctgaac ctgggaggca gaggttgcag tgagctgaga 62220
tcatgccact gcactccagc ctgggtgaca atagcaacac tccatctcta aaaaaaagaa 62280
agaaaaaaat ccagggtact ctatggtttc ctggggctgc tgtaaaaaaa aaaaaaaata 62340
ctacaaactg ggtggcttca aacaagggaa acttattgtc ttgcagttct ggaggttaga 62400
agtccaaatc aaggtgtcgg cagggccatg ctccctctaa agcagcggtc cccaaccttt 62460
ttggcaccag ggacaagttt tgtggaagac aatttttcca ctgaccaggg tgggggttgg 62520
gtgggtggtt ttggggtgat tcaagtgcat tacattcatt gtgcacttta tttctactac 62580
tacattgtaa tatataatga aataattata caactcacat tccataatgt ggaatcagtg 62640
ggagccctga gcttgttttc ctgcaactag atggtcccat ctgggggtga tggagacagt 62700
gacagatcat caggcattag attctcataa ggagcatgca gccgagatcc ctcgcatgcg 62760
tagttcacaa tagggttcgt gctcctgtga gaattgaacg cctccactga tcagacagga 62820
ggtaacacaa gcaatgggga gtggttctaa atacagatga agcttcgctt acctgcctgc 62880
tgctaacctc ctgctatgtg gcccagttcc taacagacca tggacaagta caagtccatg 62940
gcccaggggt tgggaaccct tgctctaaag gatctaggaa agaatccttc cttgcctctt 63000
cctagcttct ggtgatggct accaatcctt ggcatttctg gtcttgtagc tgcatgacgc 63060
caatctctgc ttctgttgtc ccatggtgct tcccagtgtc tctgtcttca cagctcttcc 63120
tcttcttata aggatatgac ggtattgaat tagaggcagg gcacaatggc tcacacctgt 63180
aatcccaaca ctttgggagg ccaagatgga cagatcacct gaggttagga gttggagacc 63240
agcctggcca acatggcgaa accccgtctc tactaaaaat acaaacatta gccaggggtg 63300
gtggtgggta cctgtaatcc cagctactcg ggaggctgag gcaggagaat cgctcaaacc 63360
caggaggcag agtttgtagt gggctgagat catgccattg cactccaacc tggctacaga 63420
gcaagccatc tcaaaaaaaa gaaaagatgt aggcccctgg gaaggatgcc tggcacactc 63480
agaggtggga caatggtgac agtcctgaca ctttccctct ggagagcatg gacccctggt 63540
cttggccatg cagccaggcc tggcccagcc tgcctgtccc ccacccccac ccacagggac 63600
tgggcccttc ctgcccagga actattctga ttctgcagcc ctcaggcttt attgcttttc 63660
ctgcttaatg aggtgaggtt cgctcagccc agtggcaatt cctgtaaaag ccatttggat 63720

gacccaatgg ggtgagttta cagggaagcg ctccctgagg gctaggctgg ctggaagcag 63780
atactttgcc cccttccaag gacggtaatg aggtttgagg cttccaatgg gggcagggga 63840
tgatctgggc gccaaaagcc ctggcctggg gtcaaaagat ctgggctcca gccccagccg 63900
ggctaactag gcagtctcct gtctgagctg tactcccctc atgggtgaaa tggggataca 63960
ggcacatact ttatagcctg cagtctgtgt gtaacagaga accataagct ggtgggtcgg 64020
ggagtggggc tgggggttat ttctcatggt tctggaagcg aggagttgga gatcagggtg 64080
actgcatggt aaggttctgg tgagggccct cttccaggtt gcagactatg gtcctctcat 64140
ttcatcccca cgtggaggga agaggcaaga gaacactctg gaagttataa gagcactaat 64200
cccattaatc ccattcacca ggcctccacc ctcgagatct attcacctcc caaaggcccc 64260
acctcctaat cacagcacgg gggtttgggt tcaacatagg aatttttttt tgagatggca 64320
tctcacacag tgttgccagg ctgtagtgca gtggcgcaat ctctgctcac tgcaacctcc 64380
acctcccggg ctcaaacaat cctcccacct cagcctcctg agtagctggg accacaggtg 64440
tgcaccacca cacctggcta acttttttgta cttttagtag agacgagatt tcaccgtgtt 64500
gctcagattg gtctcaaact cctgagctta agtgatttgc ccacgttggc ctcccaaagt 64560
gttgggatta cagatgtgag acaccacatc caacctcaac atatgaattt tagagtgacc 64620
caaacattca gtccatcaca gtctcctgca ggattacaga tgtataatca gtctgtaatc 64680
cacaaagttc taagcaaagg aaaagaagta ccaatatcac tattgctatt gttattatca 64740
gcacccaaga ccttccccag tctcagtgag tggaatatta agatgatccc aaagacgctc 64800
gacttctcta acccgtaata ctcacaggtt ccaccccttt gattgtgggc agaacctgtg 64860
aatattatga tctgactgcc atggttacct tatatgacaa aagggagatt agcctgggtg 64920
ggcctgacct aatcagagag ccctcaaaca ggactggctt tttgtttttt gtttttttttt 64980
tgagaccgag tctcgctctg tcacctagac tggagtgcag tggcatgatc tcagctcact 65040
gcaacctctg cctcccgggt tcaagcagtt ctcctgcctc agcctcctgt tggctcttac 65100
tggccaagga gattcaaagt atgagaggga ttcagcgtga gagagatttt ccattgcagg 65160
ctttggaggt gaaggtggcc aatacaggag gcctctagaa gctgaaagca gccccccagt 65220
gacagctagg aaggaaatgg ggacctcagt cctatggcca cacggaactg aatgaccttg 65280
gaagtggatt tgtccccaga tcctccagac aagaactcag ccggaccaac atcttgcatt 65340
tcagccttgc gatgagcaga gaactcagcc atgccagact ctggaccaac acagctgtga 65400
gctcatacat ggatattgtt ttaagctgct gggtctggga tcatttgtta cacagcaata 65460
gaaaaccaat acatactctg tcaaggaagc ctgagaatgg aaggccccta ctcaatctac 65520
cctcccacta tagtctggtg gttagagaca agggctctgg agtcagatgg aacggtgttc 65580
gaatcttggc aattccatcc actggctgtg gaacgttgtc cacactccct tcctcacctc 65640
ttatatcctc ggtttcctca tctgtgaaat agcagtggaa ataaaatgca tggaaatcat 65700
cagagcaggg tatgcatcgt aaggacacat agtaatagct caagaaacac tgtatatgtt 65760
aaacattaga aacgagctga gaactaacac caatgcacct gtgttcttca atgcactgcc 65820
tacacaccag agaagagggg gaggagccca gatctgctgc tctgggagct acaggccaat 65880
tagggaatca ggaacctgaa cagaaaacca caacttcagg gaaagtagat ggtacatgtg 65940
ttatgttatt gtggacatgg cggggcaaag acaagacctt aggtctttga actccccctc 66000
ggagtctggc acaggcctga gtggagctcc ctcctcaaga cttcctttgc actggcttcc 66060
ctgaggaagc atttgcattt agggttctgc tgtggaacct ctttctcttg atctacatga 66120
agcctgaggc caaggcctta cacctgtaag ggaggaggtg gccctgggcc caggaaaagg 66180
gtgggtccag tctcccagtt ctgtccctgg catgtactct ccccaggcct atcccacccc 66240
caagtcctcc caggctccaa accctgaggc cccaccgact gtcactcaag aaatcaccga 66300
ggctgggcat ggtggttcat gcctataatc ccagcacttt gggaggctgg ggcaggtgaa 66360
tcacttgagg tcaggaattc aagaccagcc tggccaacat ggtgaaaccc catctctact 66420
gaaaatacac aaattagcca ggcgtggtgg cgggcgcctg taatcccagc tacttgggag 66480
gctgagacaa tagaatcgct tgagcctggg aggtggaggt tgcagtgagc cgagattgca 66540
acacggcact ccagcctggg cgacagagag agattctgtc tcaaaaaaaa aaaaaaaaaa 66600
aaaaagaaaa gaaaagaaaa gaaagaaaga aaagaaaaga aaaaagaaat caccaagccc 66660
tctctatacc cataagcaca gccttgaccg aagtcctgac ggctgagcat gcagctcaaa 66720
tccctgggga gataccactg cacatacacg agggcggtcg tcatccaaaa gacagaccac 66780
agcaagcgct ggagaggatg tggggcaact gaaaccctgg tacgctactg gtgacatgta 66840
agagggcgca gctgctttgg aaaacagctt ggcagttcct caaatggtta agtatgaaat 66900
taagcaaatg gttaaatgta aatacgaccc agcagttcca ctcctaagta tacatccaag 66960
aggaatgtta acatatgtcc acgcaaaacc catacacaga cattcagagc agcattactc 67020
atagtagcca agaagtaaaa acagctcaaa tatttatcag ctgatgagtg ggtaaacaaa 67080
atgtgggaca gccatacaaa gggacactat agggccatat aaaagggacc aagccctgat 67140

gcatgctgtg agacagatga accttgaaaa cggtatgcta agtgaaagaa gccagaacca 67200
gcaggccaca gaaggtatgg ctccacggac aagcaagtcc agagcaggca aatccagaga 67260
gacagaaagt ggatcagtca ttgccagaag ttgagggagg ggagaatggg agtcattact 67320
aataggtatg gggtttcttt ctggggtaaa actgctctgg atttagatag tggtgatggt 67380
tgcacagctt tgtgaatatg ccaaaaaaaa gaaaaaaaca ctaaattgta tacttttttt 67440
ttttttgag acagcctccc tctattaccc aggctggagt gcagtggcac aatcttggct 67500
cactgcaacc tctgcctcct gggttcaagc gattttcctg cctcagcctc ctgagattac 67560
aggcgtatgc caccacactt ggctaatttt ttttttttc gagacagggt ctccctctgt 67620
tgtccatgct agagtgcagt ggtgccatct tggctcactg aaacctctgc ctcccgggtt 67680
tgagcaattc tcccacctca gcctcccaag taggtgggac tacaggcatg caccacccac 67740
ttggctactt tttgaatttt tttgtagaga cagggttttg ccatgttgcc caggctggtc 67800
tcaaactcct ggagtcaaac aatccatccg cctcggatat ttctcactgg cataatcagt 67860
gctgaaagat cattgaaaag gggcttgcat gatccagagg tcactgttat ttaatgcgct 67920
ctcctcatct cctgcaggtt gtgacttcaa tataccctct catgagacct ttcctggccc 67980
cttatctgta agtgtgacca ccgggacccc gtctcccaat tccctcttcc tgctttattt 68040
ttctctttag catttaatac catctgacat tccaaacatt accttgtcct tgtctggtgt 68100
ttgtcacccc aactagaagt gctaggggggc aagtactagg aagcagggtt ttttcttttt 68160
ctttcctttt tttttgagat gaaatttctc tcttgtctcc caggctggag tacagtggcg 68220
caatatcggt tcactgcaac ctccacctcc cgggttcaag tgattctcct gcctcagcct 68280
cccaagtagt tggcactaca ggtgcctgcc atcatgccca actaattttt gtatttttag 68340
tagagatggg gtttcactcc gttggccagg ctggtctcga actcctgacc tcatgactct 68400
cccaggaggc agagtttttt ttttttttttt ttttttttttt gagatggagg cttgctctgt 68460
cacccaggct ggagtgcagt ggcgcaatct cggctcactg caagctccca ggaggcagag 68520
tttttgtctg cgtggttcac tgctaagtcc ccagcactaa gaggacagga cctaacacat 68580
aggaggcact cagcaaacat ccatgaacga atgaatgaat ctgtatctcc agtggctttg 68640
tcctctctta tatcagcttt gttccacatc ttacacttag gaggtgattc aattaaacat 68700
tgctttttgt gtgtgtttgg tggggttttt ttgttttttt gtctttttgt tttttgagac 68760
agcatctcaa tcttttgcct aggctggtgt acagtggtgc catcaccact cactgcagcc 68820
tcaacttccc aaactcaggt gattctccca cctcaactcc ccgagtagct gggactacag 68880
gcacgcacca ccacaccagc tacttttttgt atttttagta gagatggggt ttcaccatgt 68940
tgccatggct ggtctcaaac tcctggcctc aagccatcca tttgcccaac taggcccccc 69000
agagtgctgg gattatgggc gtgagccact gcacccggcc aaccattgtt gagtgagcaa 69060
gtaaatgaac tcatcaacga atttctccct gggtagcgaa gctcccgctt tttgaggtaa 69120
cccagacttt tcatttgtat gtttcctgag tccctgactg tacattcttc ctgcatattg 69180
tctccaggac taagagaatg gagccttttg ccaagaagag gttgcgttct caggcctcca 69240
gtttagatta aatagtggtt ttacaagggg aaacaaagtg acaaaccccc agaagttgtg 69300
gggagctgag acggggtggg aatagggttc cccagggaca aactccttct tgtccccctg 69360
cccagcgccc cagggcacac tgcccagtgg gtgaaagcag ccagacacac gggctcactg 69420
cagttaccaa gcaatcctaa gtgtatcaag atgggcgcgc tgacgacagc tgcaccgagt 69480
gaatctggaa tgaattgggg ggttgttaag atcgccgact taagcctctt ctcacaggaa 69540
aaatatttat ttcactgagc tctgcttttt ggaaagctgc gcctgtaaca gtctgcatcg 69600
atctagcaga gttttggcta ctgctgggtt ttgtctccct cctgtctcgg ttagcgtggg 69660
ctgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtccac agcacaccct cccattatta 69720
agcaatcagc caaaagactc agccaggaca ctctgctctt ctttaaccag aaaaaagatg 69780
aacacgaact gagttcgtgg catgaggcac gagaccttca tgttttatct tcaaagatgc 69840
ctgcttgaaa ctagcaattg tttctttccc tttttatcta gtaaattgct ccctctacct 69900
cctcccagtt tgggaaaaaa atacaagtat gaagaagaaa gtaaaaatca ctcctatggt 69960
taggttaggc ttgactgcag aattgtttcc ttttttttttc ttttttttctt ttttttgag 70020
acggagtctc actgttgccc aggctggagt gcagtagcat gcgatcttgg ctcactgcaa 70080
cctccacctc ctgggttcaa gcgattctcc tgcctcagcc tcctgagcag ctgggactac 70140
aggcccgcat caccatgccc ggctaatttt tgtattttta gtagagacgg ggtttcacca 70200
tgttggccag gctgtccttt ccttttctac tctttggagt cgaggggcct gggtttgaat 70260
cctagctctg ccacttgctg gctgtgtaac cctgagaatc atgtcaccac ttggaacctc 70320
tgtttcctca tctgtcaaat ggtgtaataa tagtgcctgc ctctttgatt gttgggagga 70380
gtaaacaaga gaaagtatat atagagctta gtgaaggttc agcaacaata aatgcaaatg 70440
gtacctattt tataggagaa atatatacaa ttttttatct tctttttcat aaaacagtat 70500
agcgtataca gtttcctgtt tcactgcctc attttagagg cagagtcttg ctgtgttgcc 70560

caggctggcc tcaaactcct gtctgtgctc aaatgatcct cctgcctcag cctcctgagt 70620
agctgggatt acaggcaccc accaccatgc ccggctaatt tttgtacttt tagtagagac 70680
ggggtttcat cgtgttggtc aggctggtct cgaactcctg acctcatgat ccgcccacct 70740
cggcctccca aagtgctggg attacaggcg tgagctaccg tgcccggcca actcacaagc 70800
atttctaatg actgcaaaat agtccattgg gggcccatcc ctacattagt ttttaaaccg 70860
tttcctatgg atggaaatag aagttgcttc cgaaatatta taaagattgc tgtgataaac 70920
acctccagac tcaaatcttg gtctatgttt gaggctctgt ctttaggatg aattctcaga 70980
agttaaattg ttggtcaaat agtatgatca cttccaagag ccttgatata ccatacttag 71040
cactgcaagt tgctttcgag aaagattacc tacagatgtg tatgagagaa ccctgtggcc 71100
aagcgaggtg gctcatgcct atagtcccaa cactttggga ggccaaggtg ggaggatcac 71160
ttgagcccag gagttcaaga ccagccttgg caacatagtg agaccccatc tctccacaca 71220
cacaaagaaa gagagaggct gggcatggtg gttcacacct ataatcctag cactttagga 71280
gacctaggca ggtggatcac ttgaggtcag gagttcgaga ccagcctggc caacatggca 71340
aaacctcatc tctactacag atacaaaaat tagccaggcc tggtggcatg tgcctgtaat 71400
cccagctact tgggaggctg aggcaggaga attgcttgaa cctgggaggt ggaggttgca 71460
gtgagctgag atcacaccac tgcactttag tctgggcaac agagtgagac tcttctcaga 71520
aaaaaaaaga gagaaagaga gagagaaccc atcttaccac atcccagctg cattgaggat 71580
tattaccttt tagttgttgt taatttgaca ggcaaaatga catctcattc ttaaatctgc 71640
attaaaaaaa tttcacccag tatttttcta atactagttt tattggctac aatgtgttga 71700
gtgtttacta catgccaagc atagggtaaa tgtcttttac ttttttttttt ttttttttt 71760
ttgagagaca gggtcttgcc tgttgcccag gctggagtgc agtgatgcga tcatacctca 71820
ctacagcctt gaactcctgg gctcaaggga tctttctgca tcagcctctc tcttaagtag 71880
ctaggactcc aggtgcacca ccatgcctgg ctaatttttt tttatttta tttttttgta 71940
gtaacagggc ctcggtatat tgcccaggct ggtctcaaac tcctgggctc aagtgctcct 72000
cctacctcgg cctcccaaag tactgggatt acaggtgtga gacaccatac ccagcctcca 72060
taaaatgttt taatcaaact tctgggtatg tacccaaaag aagcgaaagc agggactcta 72120
acaaatattt gtacatctat attcatagcc acattattca tcatagcaaa aaggtgcaag 72180
agacccaaat gtccattgac agatgaatgg ataaacaaaa tgtggtgtgt atatatgcaa 72240
tgagatatta ttcagcctta aaaaggaaga aaatgttgac ccatacgaca acatggatga 72300
accatgaaga cattatgata agaaaatatg cccatcacac aaggacaagt gatgtatgat 72360
ccttttatat gaggttccta gaatactcaa attcagagac agaaatcaga atggttggac 72420
tgagcgaggt ggctcacacc tgtaatccca gcactttggg agaccacggt gggaggatcg 72480
ctcgagccca ggagtttgag accagcctgg acaacagagt gagatcctat ctctacaaaa 72540
taaaactttt taaaaattag ccaggtgtgg tggtatatgc ctactactca ggaggctgag 72600
gtgggaggat tgattagact caagagatca aggttacagt gagctgtaat tgccccactg 72660
cactgcagcc tgggaaacag agcgagattc tgtctcaaaa aaaaaaaatt ataatcaatc 72720
tttacatgtt attttataag atgttattat taccctccag ccttctttaa aagatgatga 72780
aactaaggct cagagagatg aaacacgttc ctagagtcac atagcttata aatggtgaag 72840
acaggtttag atgccaggtc ttactctcca aggctacgtt atcctgcaaa ttctggtgga 72900
cctgggaggt aaaggggaaa tacaatcaag ctctaggtgg cagatggagt tagcaagtac 72960
ccagtgccaa acggaactgt tggccctgag agctcagagt tcagttctaa atttattctc 73020
tctgacctta ttgtggattc taaatttggc caaacaagtt cttccagacc gattagtgac 73080
gtggatacat tgttttgaag ataaaaccct tttcctggta tgaaagaaaa aaaataataa 73140
tgcagcattt gcttgcagaa gccaccctgc cgctggttaa cagccatctg aaaatgattc 73200
tgggttttcc acctgatggt ggacacatgt gcttgttggc cgatttcttg gggacagtga 73260
ttaaaaccat ttcctgaacc gaagtctgaa tttctcctcc tgaatgaacc agaaacaaaa 73320
catcaggaaa tatccaggca tgaaaattct aaccagggcc gggtgcggtg gctcacaact 73380
gtaatcccag cactttggga ggctgaaggg ggtggatcac ctgaggtcag gagtttgaga 73440
ccagactggt taacatgaca aaaccccatc tctactaaaa atacaaaaat tagccaggcg 73500
tggtggcagg cacctgtaat cccagctact cgggaggctg aggcggaaga atcacttgaa 73560
ccctggaagc agaggttgca gtgagccgag atcacaccat tgcactccag cctaggtgac 73620
aagagcgaaa ctccgtctca aaaaaaaaaa aaaaaaaaaa ttctaaccag aaccaaactt 73680
aaaattctcc caaaattaca aattaagacc aaaataggcc tctttgggtg gtttccaggc 73740
cagggaggag ttatggggtc ctcggataat caccagctga gtcctgactt ctctgggaag 73800
gtattggggt gactgacctg tttgtgaccc cttctcagac accctatctc caatcaggtg 73860
gaggaggcac gtgacccaca tggtctggcc actgatgact gaacaagcta tggacaccgg 73920
accccggaga gaccattcac tcactggcca cgaacatgag ttcagataca tgccccaaaa 73980

```
ggatgagcct gggtactgga ttccctccct cagaaacgtg aatcaagaga cacaggatgt   74040
tcctgttggt ccagatactt gagctaaaag gtgatggata cctggatgtg gggtggtcat   74100
tctggggagt acgtccatat agaaagagga gcaggtgctg tgggattctg gatcccagtg   74160
atagagctaa gtggctggat caagcttcac ctgaaaccca ctctacttgt cttagtccat   74220
tttgtgttgc tataaaagaa tacctgcaac tgggtaatgt ataaagaaaa gagacttatt   74280
tcattttata gctctgcagt ctgagacatt taaagggatg gccttgactt ctggcaaggg   74340
cttgcacgtt gcatcaccac acgcaggaaa agggaaaaca gaagggagac tgcaaaaaag   74400
gggaaaacct gaaggtcatc atagctttat aataacccac tctcacagca atgagttaga   74460
tggagaacca attcagtctc acgagagtga cagcaagaac tcactcactg gtgagagggt   74520
agcacttcca agccattcat gagggattca cctccatagc ccaacacctc ccactaggcc   74580
ccgcctccca acactgccac agtggagatc aaattgcaac atgagttttg gtggagacaa   74640
acacccccta tccaaatcac agcactaccc ccgaactttc cattacacga accaaagaat   74700
cttcctttaa attagtgtca ttgggttttc tgggatttac ctttttttttt ttttttttt   74760
ttttgagaca gggtcttgct ctgtcaccca ggctagagtg tagtggcaca aacacagctc   74820
actgtaggct cgacctcctg ggctcaaggg atcctcccac ctcagcaccc cccacctatg   74880
ccctcaaagt agctggaact acaggaacca ccacacctgg ctaattaaaa aaaaaaaatt   74940
ttgtagaggc cgggtgcggt gtctcatgcc tgtaatccca gcactttggg aggccgaggt   75000
gagtggatca cctgaggtca ggagtacaag accaacctga ccaacatggt gaaaacctgt   75060
ctctattaaa aatacaaaaa ttagctgggc gtggtggcac atgcctgtaa tcccagctac   75120
tcgggaggct gaggcaggag aatcgcttga acgcgggagg cggaggttgc agtgagccaa   75180
aatcacgcca ctgcactcca gcctgggcaa cagaacgaga ctgtcttaaa aaataaaaaa   75240
aaaaattgta gggacacagt ttcactatgt tgcccaggcc agtcttcaac tcctgggctt   75300
aagcaatcct cctgtcttta cctcccaaag tgctgggatt acaggcatga gccaccacac   75360
ccagcctaac atgtttttaa taaccaaaag aaaataaaca tctccatagc cttgtgacac   75420
atccttttt aacctgaaat tggtagagta ggtttctgat tcatagaacc caaacaaaca   75480
ttcctcccta aagcaggcag aggctctttg ggagagttta ctttcaaaac agtgtccctg   75540
caagtcccaa gtgacaagtt ccccttttcct ggtctgaagc attctgagga gaggcaaaga   75600
ggttaaggct tagctgcagg aacacgctgt ccccacgaca acccccttctc agcctcggaa   75660
ctgctgttat cagagttgtg ttgtctcttg aaggtccgga caaagggtga agccaggact   75720
cctgagtcta aagggcaggt cggggcctgg gagagaaggg gaagctggcc tggggcagag   75780
atatgttttc catttccccct ggggtcccgc gcaggacagc tgctgtccat agccagttca   75840
gccaaccgtg ggaggaatca cattcactcg acaggcaggc agtggcggca ctgggatttg   75900
aacatggggc tgatgggctc caggcgtggc acctgtgcca ctacagtgcg gggaagctct   75960
gactgctgca gcctccgttg tcgccacatc tgccctcgaa tttcccttcc agctggttct   76020
gcaatcagca gcccctccag acatccctgg gaggctccaa ggagctgact cctgatgagg   76080
aaaaggatca gccgcagact cactcctcct ccagccactt ccagacccac gggaggcgtg   76140
ggtgtgaccc agactacctg ggagcatctg cttttgtctt tatccagggc aggaccctct   76200
gaaggaggag ccctcagaga agaagggaaa agccaaaagg aattaaaagc caatttccaa   76260
atggaaataa ataagcagtc ataattggcc acattggtga aattgggcac taagggccag   76320
gcaatgggct gtgggataat gtcacttgag gcttacggcc acgctcagag gaaggtgctg   76380
aggtccaggg aggttcaggc aggtgacatg actcacccag agccactggc tggagagtgg   76440
cagggctagc ttggagccca ggtggtggac ttcataggtg cagccgtgac tgctgtcatc   76500
cctcccatgg ggagttgttg cagagagtga gacacagcgc cctaagctat ttctccatct   76560
ggtgtgcctg gatgcctctg cccacccagg accctcctct cgggtggccc accactgccc   76620
ttccatcaca gttcatacct tctctcgtgg acccacaggg gtgtccactg gaccaggacc   76680
ccagggagga tcccagtcct ggccccacca ctctctggct ggtgacacgg gggaagtcaa   76740
ttctttccaa gcctcagctt tctcacctgt acaatgggag tttgtgctag acaagaagtt   76800
ttcaggacgg acacagtggc tcacgcctgt aatcccaaca cttggggagg ccgaggcggg   76860
tgggtcactt gaggtcagga gttcgagacc agcctggcca acatggtgaa acctcatctc   76920
tactaaaaat ataaaaatta gccagattgt catagcgcat gcctgtagtc ccagttactc   76980
gggagactga agccaggaga atcacttgaa ccggggaggt ggaggttgca gtgggccaag   77040
atctcaccac tgtactccag cccgggtgac agagagagac tgtctcaaaa aaaaaaaaaa   77100
aaaaaaaagt tttcaaactg ctgactgcac ctgtttgtag gccctgagct caactgagtg   77160
agtcacacag gtattcactg acgtgattct gcctccaagg ccacattttc tccagtgcac   77220
ctctgtcctt cagcaagtga cctgaggctg ggactgccac atgctgcctc ccatcagcac   77280
cttacccaga cctactgctg gctacaacgt gcttaatgat tgtcaggtgg ctcacatacc   77340
ctgttctgtt cggcttcaca gtgtctgcca gcccgtggag tatggcacag tggctactag   77400
```

ccagggtcag gcagtgcgac tccacctctc caagcgcccc agtgcagcgt ctgatcatag 77460
ggaataactc tacctgcttc acaggactat tctgtgaata ctaattagga taacatatgt 77520
gaaggtcttg gcgttgtgag cacatgagcc caaggtcagc tccctaaaat gatgaagttc 77580
atatcacaag aggcccctag aggtcaggac agcctttcgg tacctttcta tggcaaacaa 77640
gcggctggtt ctctgccacc tattttctcc ccttcattgg gcaagactga gctggcagaa 77700
taatggccac atcagtattt actctctact ttctggcttc cctagattgg tgccagccat 77760
ttgtcccccc atccaagaca accctgatcc ccatccccag aaggaaaaca cctcacctct 77820
ctcacaattt gagaatggct gtcaactcga gcacattatt agatttaatt gtatctaata 77880
cttgaatacc taatatatta ctttctctct ctctctcttt ttttttttt ttttgagat 77940
ggagtttcat tcttattccc caggctggag tgcaatggcg tggtctcggc tcactgcaaa 78000
ctccgcctcc cggcttcaag cgattctcct gcctcagcct cccgacttgc tgggattaca 78060
ggctctcgcc actacacctg gctaatttct gtatttttag tagagacggg gtttcaccat 78120
gttggtcagg ctggtctcga actcctggct tcaggtgatc cacctgcctc gacctcccaa 78180
agtgctggca ctataggcgt gagccaccgc acctggcccc aatatattac tttcaaggac 78240
aaaaactgca attacttttg caccaaccta atatttaagg taggacaccg tgaagcccag 78300
tgagatctct gtggtggaca aacagcgtgg ctgctaggct gtgagccctc ccgcctgtct 78360
gctctccatg ctgtgcgcca ctcctgagag ctgggtcagc agtcgcactg ttggctttgc 78420
tctgacctcg agtctatttc ttttccatgt gtgtgtgcag ccgctgcctg gagtggaaat 78480
ctccactgag ggacagacct tctttcaagg ctcacatcag gcaggatccc acgggaaagg 78540
gggctggctg agtcaggagg gttctctgcc tgagttcccg tgtgacattg ggcaaatcac 78600
tcaacgctca gagctgcgca tttttatctc catctgcttg gagcaggaat tgcaaagagt 78660
ttcagctcag gttccaacgc caaggtggga gatattggtt gctttgggta tagtgttgag 78720
atagattctg aggctgtgta tgggctcact aggaaagggt gctgtgtctg ccatgaagtg 78780
ggaaatcggt gggggaagaa aaaagaaacc cggctgggca cggtggctca cacctgtaat 78840
cccaacactt tgggaggccg gggcaggagg atcacctgag gttaggagtt tgagaccagc 78900
ctggccaaca tggcaaaaac ttgtctctac taaaaatata aaaattagcc aggcatggtg 78960
gcgcatgcct gtaatcccag ctacctggga ggctgaaaca ggagaatcac ttgaacccag 79020
gaggcagaga ttgcagtgag ccaagatcat gccactgcat tccagcctgg gtgacagagc 79080
gagaccctgt ctcaaaaata aaacccaaaa aacaaaacaa aacaaacaaa aaaaccccat 79140
ggtgctggcc gggtgcggtg gctcacgcct gtaatcccag ccttttggga ggctgaggca 79200
ggaggatcac ttgagcccta gagttcaaga ccagcttgag caacatggca aaaccctgac 79260
tctactaaaa ataccaaaaa aaaaaaaaaa atgctggacg tggtgatgtg tgactgtggt 79320
cccagctact caggaggctg aggcaagaag attgctggag cctaggcctg tctggctaac 79380
ttggctctac cttggctcag agccccctct tccttttttt ttttttttt gagatggagt 79440
ctcgccctgt cgcccaggct ggagggcagt ggtgtgatct cggctctccg caacctccgc 79500
ctcccgggtt caagcaattc tcctgcctca gcctcctgag tagctgggat tacaggcacg 79560
caccacgaca ctgggctaat tttttgtatc tttagtagag atggggtttc ctcatgttgg 79620
ccaggctggt ctcgaactcc tgaccttgtg atccacccgc cttggcctcc caaagtgctg 79680
ggactacagg catgagccac tgtgcctgcc gggtgggttt cttatggcga atgatcccac 79740
accacttttc agtgcacgta gttacatgga gtagaacaca gacagtcaca cctccacgtt 79800
cttttggcca ccatgactgg ttcaaccaag gaatctgctc caagctaggt gaaggaaaat 79860
cagccctaag gccccccgtc gccacgcacc tcactgtatc cagctatacc taaagccaaa 79920
ccgaatccca gacatctaaa ttttatgagc cagtaaattc ccttctttgc ttaagccagt 79980
ataaatcagg gtcccatccc ttgtaatgct gagtcccaag gcccagactc tgggcctttc 80040
gtttttccat tcaggcccca gaatgaagac caaggaaggg tttattaaca tgacagtgaa 80100
catctagggc cttatataca tttttcttca attcagccaa gacaagaggc ctagaataca 80160
gagaaaggac acccatttct tttcttttct tttcttttct tttcttttct tttctttttt 80220
gagacggagt cacgctctgt tgcccagagt cacgctctgt tgctggagtg cagtggcgca 80280
atctcggctc accgcaatct ccgtctcccg ggttcaagca attctcctgc ttcagcctcc 80340
caagtagctg ggactacagg tgcctgccac tacacccagc taaattttgt atttttagta 80400
gagatggggt ttcgcctgtt gctcaggctg gtctcgaatt cctgacctca ggtgatccac 80460
ctgccccgac ctctgaaagt gctgggatta caggcgtgag tcaccacgcc cagcctagga 80520
cacccatttc tttgtttgtt ttgtttgttt tttgttgttg tttgttgttt ttttgagacg 80580
gcgtctcact ctgttgccta ggctggagtg cggtggtgcc atctcagctc actgcaacct 80640
ctgctgggtt caagcgattc tccctcctca gcctcccaag tagctgggac tacaggcgtg 80700
tgccaccatg cccagctaat ttttgtattt tttgtagcaa tggggtttca ccatgttggc 80760
caggctggtc tctaactcct ggcctcaagt gatccactgc cttagtctcc caaagtgctg 80820

ggattacagg cgtgagtcac cgcgaccagc ctaggacacc tatttcttca aacataggaa 80880
gaaacatctt atctgcatga tccctcctgg ggagctatct tacggtctta tgtgataagg 80940
tgacctctcc tttgggtgag tggagtaaaa aagcgggcga ggtatctgga atatgcttct 81000
atccctccta acctccccta caaacaaagc tttcctgaat gccttgtcct tagcttcctg 81060
gactctgaac ctagcttggc taaattttct ttttaaagca tcagcataaa tcatgaatac 81120
cttgggaagg gaacattaac catcagccgg caaagttaaa attcccctcc agcccactta 81180
aatggactga aacctccacc ccatccccaa acgagcctcc ctggccttgt ccttgaacat 81240
ttcaaaatcg ggtttctgct ttaagttctt taaactactt ttttttttt ttttttttt 81300
tttgagaggg agtctcgctc tgttacccag gctggagtgc aatggcacga tcttggctca 81360
ctgcaacctc cacctcctgg gttcaagtga ttctcctgcc tcaacctccc aagtagctgt 81420
gattacaggc acccgccaca acgcccagct aatttttgta ttttcagtag agacggggtt 81480
tcaccatgtt ggtcaggctg gtctcaaatt cctgacctcg tgatccgcct gcctcggcct 81540
cccaaagtgc tgggattaca ggcgtgagcc accgcgcccg gccgctgctt taagttctta 81600
acacgtcctc accgcggctc agctcactgt acggcccctg catagagagg ggagggcagg 81660
ggccatgata ctgaactcac agctctgggc atttctgaag tctggccctt gaagcttttc 81720
ctagagcaaa ttgttttctt ctccccttca ggaaactgaa aattcacaca gcagccgtgg 81780
gagtcagagt agcaaaggct ttgagatcac atagacctgg gacacgtgct tgctttgtga 81840
ttacgggtaa gttccgtagc ctctctgagc ttccatttct ctttctgtgg aaaggggata 81900
ctaatactgc ccactgtgag ggctgtttct gagattccat gctgctgtga ctagcatctg 81960
cctgactagc agaggatagt tacagtgtca gcgtccatgg ccctctcatg agactggggc 82020
agggggtggg aagggtgttt gggacaccct gggaacctta gcatcattct gccatgggag 82080
tatgacctgc tgttccctgg ctgccctcag tctgaggctt gctctgccag tcccgggaga 82140
actgtccact catcatcccg gcagagacag atctcttttt cgctgtgcac aggtggggaa 82200
actgactctg cccagtcacc tgagtctgtt gacagaggca cctggccatc tgtatcctgg 82260
tcctcagctc tgagaccagc aggaaagaga ggaggacatt cctaatgggg gacacagtga 82320
ccttcctcct cctgcccctg atgctcccac cactgtggtc ccctggtggt gccaaccact 82380
cagactccag aagctgagtc ccctctcagt cccatgaaca ggcaaagctg cttcctgcag 82440
aggccccaac ctttgcgcct cctcctcaga gaatctgatt ctccctcctc agtgcggttc 82500
ctttcccaca cacacccaca caacaatcca gactcagaga atggagtgcc tcaaattagg 82560
ggaaatggcc gggcacagtg gctcacacct gtaatcccag cactttggga ggtcaaggcg 82620
ggcggatcac ttgaggtcag gagttcaagg ccagactggc caacatggca aaactccatc 82680
tcccctaaaa atacaaaaat tagctgggcg tggtggcggg tgcctgtaat cccagctact 82740
tgggaggctg aggcgcgaga atcacttgaa cctggatggc agaggttgca gtgagccaag 82800
atcaagccac tgccctccag cctgggcaac agagcgagac tccatctcaa aaaaaaaaaa 82860
aaattcagga aatgatgagg ctgcacacac acatgcacac accacacatg gctcatgcat 82920
gcacatgaca tgcattcaca tgcacacatg cccatgcatg tatgtgttca catatgcaca 82980
cacagcacct gctcacatgc acacacagga cagtcacaca catgcacaca cacgcatgca 83040
catgcacact cacatataca ttatacacat atgtacacat ggcgcgcaca cacccataca 83100
tgcatgctca cacatgtgca cacatggtgc acactcacac acccacacat gcatgctcac 83160
acatgcacat acacactccc ctcttcaccc agccaccccg ctattcattc tggatcccct 83220
tacccaaccc tggttcagga ccacctctcc tgacccctag gctaggtcag gccactctcc 83280
tgacaccctc attactcata ggctttctct tcagcacttt taccacgatt gtgactaatt 83340
acatgtgtga tcattttggt accaggtaat attaatagct cgaaaaatat tactgggctt 83400
tcctctttgg cctttctggg taagtagccc ttcccctctc aggcctgagg cacctggcta 83460
cctggaaaat atttgaattt gtacagaagg aataaagagg accatggcag atctagttcc 83520
tgatcatcaa cacagacttt gctatgagac agtaggttta gaagtcaccg ctgcgcactg 83580
accctctggg ggcttgggag gaaagtgctc tgagaccacc ctccagcagc ttaggggtgg 83640
ggcccctgga ggtgcagcaa gttgagagga aggaagccct ggtgtttcgc tttccttggc 83700
cacactggtc ccctccgggc caggatgggc tcaatgtgtt cttgctcagg taggtgacac 83760
ctcattaaga caaggggcag agggacctgc agaagggtct gggagtagat ggctcaggta 83820
ggggtcagat gcagtagaga agaggggggct ctgaaaaaaa aaaaaaggct gggcgcagtg 83880
gctcatgcct gtaatcccag tactttggga ggccaaggcg ggtggatcac ctgaggtcag 83940
gagttcaaga ccagcctggc caacctggcg aaaccccatc tctactaaaa atacaaaaat 84000
tagccgggcg tggtggcagg cgcctgtaat cccagctact caggaggccg aagcaagaga 84060
atcacttgaa cccgggaggc ggaggttgca gtgagctgag atcgcaccat tgcactccag 84120
cctgggcaac aagagcagaa actccatctc aaaaaaaaaa aaaaaaaaaa aagaagaggg 84180
cgctctgagc caaggtagag ccaagtcaac caggcaggcg gaggcccaga gcatgagttt 84240

```
tacctactgc cggtttcggc caaaatgcca gaaagccaag cagcaatctt gggcatcgga   84300
cttggctaga aatccctctc ctcctgggaa gtctcgtcat caacacccag acacccccac   84360
ccccacccac ccacccagtg ccagcttaga gaaaagctgg gaggagcaga aggaaatttg   84420
agaccaagca ttacctaaag gcctaaagta ctggatcaga ttaaattaaa tctagttctt   84480
tttccttgtt gccctatgag taggctttgt gagaaatatc agatccattg caggaaataa   84540
agaaaagaca tgttctctgc agacccacat ggcaggtgag taaatgtaca gcatggatat   84600
ccgtcaccag cggtgcattc ccctaggcag gcaccacacc gtcctgtgga gcattgtgtt   84660
agtaggcgct cagtaaacac ccatgaagtg agtcaatgta tgattaaatt ccaaccctgc   84720
gtggcagcag acaggtggct ggtctctggg actggggaag aacaaggctc tgtatgtagt   84780
tggcttcctc tggaaggaca ggttttaagt cagatccgac tgggttcaaa ccttggcttg   84840
gccaaggcag cttctagcat ggcctccagt gatcccacct cctggcctga gtgtgggtgg   84900
acacttctgc tatttattta tttatttgat ttattttgag acagagtctt gccctgacac   84960
ccaggctgga gtgcagtggt gtgatctccg ctcactgcaa cctccacctc ccggcttcaa   85020
gtgattctcc tgcctcagcc tcccaagtag ctggaaccaa aggcatgcac caccatgcct   85080
ggctaatttt tgtattttta gttgtttagg atttgtttta gttgtatttt agttgtttag   85140
ggttattttt agttgtattt tagttgttta gggtttcacc atgttggcca ggctgatctc   85200
aaactcctga cctcaagtga tccacccacc tcagcctccc acagttctgg gattacaggc   85260
atgagccacc atgcccagcc atgggtaggc acttctaatg agcagaatat ggcaaaaggg   85320
acaggatgtc acctccaaga ttacgttata aaagacagtg acttccacct ttctctctcc   85380
ctctctctca catgagcacg cgcgcgtgca cgcgcgcgcg cacacacaca cacacacaca   85440
cacacacaca cataacttct tggctttctt gctttgacac agcaagctgc catgctggag   85500
atacccacat agaaaagaat tgaaatcagc ctccagccac taatagatag ataactaata   85560
gcaatagata actaatacag ccactcatta gctctgccct cagaccagtt cttaacctgt   85620
atgtgtgtac cctcatctga aaatgggcat aatagcacat ccccaccata caggctaatt   85680
gtgaggacca cgaaaatgaa tggatgggtg gatgggtaga tgggtagatg gatggaagga   85740
tggttgggtg ggtgaataga tgaatgggtg ggcgaaggga tggatggatg gatggatgga   85800
tagatggatg gatggatgga tgagtgggta gatgggtgga tgagtgagtg ggtggggatg   85860
ggtaaattgg tggatggata gatggatggg tggaaggaag aaaagatgga tggatggatg   85920
gatggatgga taggtggatg agtagatggt taggtggata ggtggatggg tgcgtggatg   85980
gatggatgga tggatggatg gatggatgga tgggtaggtg ggtgggtggg tgattggatg   86040
gatggaagga tggatgggtg gatagatgga accactggct ggagccgtgt gaatatcaca   86100
gaatcaggaa gtgaagccca atcagtaagt cccgatgggg ctgtgaataa ccctcactga   86160
gcagctgtca caaggctaag cacctggctg tccccctagg aaagcccctc accaaggtga   86220
agctctacct ccgtcctcac ttcacccgca gcccgttcct cctggggctg caaaggacca   86280
gtgcttagag ctacctctgg tcagaagcca gcagagtcct acagtaaaag gggttggggc   86340
cccctgctga gctcagtact gaagaggagg catggccagg cagcccagca ccctctgccc   86400
tccacccagc aacccccagg ctagattctg ccatcctttt ctcattgatt atgttcccca   86460
tgaggctgct cttgcccaaa agctggccca gcttgacacc acagagacaa accaaccaac   86520
agccacagca tctgatagcc ccagtaactg actcttgtgg gaaggccgcg gccagctggc   86580
ctgagtccca cagcctgacc atggctccgt cagtggccag tcctgggggc aacagggaca   86640
caggggaagg gtcaggcccc agctctcatg gtgtaacaga taccagctcc aagtcaggag   86700
aatggacttt ccacctgcat gcacgtcaca gtgcccagaa ccctaacaga catgcatcag   86760
acttgacacc ttccccaccc accaccccag gtttggctgc ccatagaggc gcacacctgt   86820
cctcccatct cctcctgggc tggagccatg tgagcagaag gggatgtgaa gacagatcct   86880
tgatgtccac aggtgcgggg actgcttgcc aacccatggc aactcacctg tagcgcatgg   86940
agatttgggg gtaaacccag tgatgctgag tatgtgggct gcccaagctg ggtggcaacc   87000
aaccccagca ttgaatgtgc tgagagctgg accggtggat gtccccactg ccctgaggca   87060
ggtccaggag aaggctccta cctgctgtgc agagggcaag gtaagtcttg tccttgatct   87120
acagccagaa gacagcaggg ctgcttctgt ctgcgtccca gcctccactc ttctctagat   87180
accatcacca ccatgacaac tgcagttaac acttagtgaa gacccctagg tgccacgcgc   87240
ccatgcaata cccacagacc cctctgaggt aggccctgta atggtcccta cgttagggag   87300
gggcggtccc aggcccagct ggtcagtgag ggaggtagga tttgaaccca ggcagcctgg   87360
ctttggggca ttgctctctg ccacgtggcc ggttcctaca cccttgccag ctacccccctg   87420
caaaggtggc cagcctggct ttgtccttca ggatcctctg atctctctca ggggcctcca   87480
acccacccac tggctctccc tgctgacaaa gcaactattt cctggcccca aagccccagt   87540
ctctggaaat gaccctcctt ccttctccag ctcatggctg tcagaggctc ctaactgcac   87600
ccacccccga tcagccaaag ccaattactc cacgtccaag acacaggcgt gttaaaatgt   87660
```

aaacggccat tcatcatctg gcagcgtgac cgtttgcccc tatcaggccc cagtccggcc 87720
tcaccacgcc tccatgctct cctcagcgtc aaagaaacag ccttgtcctg ccagggcctt 87780
cgccaggccc ggcctgggaa gtcagggctc tctgacccaa tggagcgaat cgttgcgagc 87840
atttatttaa tagcattatc ttgatgatga ataaatcaca ccttcatgaa ccatttttcc 87900
atttgtagcc ccaagtcaag actcccaaaa tgttaccaga tgtcaggcat gaaatataca 87960
cccctggcaa gctctgccat gcacaggagt catgctgctt tcaatccacg ggagagccgg 88020
acacgagcgt tccaaggcag gagcagaact ccatgttggc cattataaag acaagattcc 88080
ttttcccccg ctttttatag cctctctggg taagatgtgt ctggaaggag gtgtgggcca 88140
ggaaagagca tatgtctgat gcctgggatt ccaggacaga aagtacagcc gactccaagc 88200
tcttgggatg ggattggagg gtctcaaaac cttgccagct ttggagtcag agagaaaaga 88260
gtcccaaccc cagatttatc atttgctaac aaatgtgacc ttgggcaaat cagctcacct 88320
ctctggccct caacagagat aatcctggga cctatttcac agtcatggag aggattaaat 88380
gggaagagga ataaaaggag tttggagaag tgcccaggac atagtatgca ctgagcaaat 88440
tccgtagtaa gaggagtatt agtaatagct actattgatt aggtggtgtt gtgagttgaa 88500
cagtgttccc ccaaaattca tgtccaccca gagacacaga atgtgaccat ttgtggaaat 88560
agggtctttg caaatgtaat tagttaagat gaggtcatac tagattaggg taggccctaa 88620
gtctaatgac tggtgtcctt attagaagag gataggggct gggcacagtg gttcacactt 88680
gtaatcccag ggctttagga ggctgagaca ggaggatggc ttgagcccag aagttcaaga 88740
ccagcctgga caacatactg aaacccatcc agtctctaaa aaagaaacta aaagccaggt 88800
gcagtggctt acatctgtaa tcctagaact ttgggaggct gagacaggag gatcacttga 88860
ggccaggagt tcaagaccgg cctgggcaac atagcaagac cccatctcta ttaaaaaata 88920
aataaataat aaataaaatt aaacttaaaa aatttaaaaa ttagccagcc atggtgggag 88980
gattgcttga gcccaggagt ttgaggctgc agtgagctat gatcaggcca ctgcactcca 89040
gcttgagcaa cagagtgaga tcctgtctaa aacaagatgg gacacacagg aagtggtggt 89100
gcaaagatgg tgcagccgca agctgaggaa caacaaggat ccctgaccac cagcagaagc 89160
taagaggcaa gaaaggattc ttccttagag tcttcagagg gaaagtggcc ctgctgacac 89220
cctgatttca aacttctagc atccagaact gtgaaagaac gagtttctgt tgtttgaagc 89280
cacctagttg gaggtgcttc attacagcag tcctaggaag ctaatacagg tggttaccat 89340
gcactaggtt ctctgcatta taaatgcatc atatgtgtga attcacctaa atcctcacaa 89400
caactgtaag aggttactat accatgttac agagagagtg atcaagactc agagaagtta 89460
agggactcat agctggatct agatttgaat ttggtctatc tggtctaaag cccactttta 89520
aggaccaact gtgtatgcca agtgctagag ccacttcctt gctcagtcct caccgaccac 89580
actgtgctat ctttattcac attttgcagt tgaggaaaca ggttcaggca ggtctgtcca 89640
aggccaccct atttagggtc tgacaaagcc aggttcatct gactccaatg ccaacgccca 89700
tgctgttgac cagaccatcc ctgccaactt cccaatatga atgctttgag tggctctcgg 89760
cccccgggct gtggaacacc agcacaccag tgcctggagg gcagcagctg tccagcaaat 89820
gtctgctcat tcatttgttc acgcattcag ggcaagtcga acggcagacg gggcaggaga 89880
tccagggcca gcatcgatgg tgcagggagc cctctggccc cttaaatatc ctcagacaat 89940
cccagaaatc attcctgggt ctaccttatg tgggttttct agaatagcta ctgctgaact 90000
gtagggtagt gagggagaga cacaaataca ggcaaaacca cacaacagcg aagattccat 90060
aagggcagga gtgtttttcc accaggaaac aagaaccagt tcatctgagt tccttcgcct 90120
tttgtcccaa gacacaaaaa tgtcaaaaat gtgcaagggc tctggccaca gatggatact 90180
gtgtctcacc ccgacgggct gcttcctgca tggggctgaa ggtcagggtg aaggttgctg 90240
ccctgagagt caggggaagt tggtctgcct cctgctgtgt cacgtacttg ccatggtgtg 90300
tgggatgagg cccatcatct cccagaatta agctgtagct gactataaaa ccacaggtga 90360
gggctgggtg tgggggctca tgcctgtaat cccagaattt tgggatgcta aggcaggagg 90420
ttcgctggag cccaagagtt caagaccatc ctgggcaaca tagagagacc ccgtctctac 90480
taaaaataca aaaattagcc agacatggtg gtgcatgcct gtggtcccag ctactctgga 90540
ggctgaggta ggaggatcac ttgagcccag gaggtcaagg ctgcagtgag ccgtgatcat 90600
gccactgtac tccagctggg gccacagagc aatactcagt ctcaaaacaa aataaaaaaa 90660
cccacaggtg aggtcacatc aggcttttcc cctttattct ccctaagggc tccacaacat 90720
cagaaatggg tttctctatc agtgcatcct ccagattcta ctttttttt ttttttttt 90780
ttagtagagg tcttgcttat acccaggctg gtttcaaact cctgggctca agcaatcctc 90840
ctgcctcatt ctcccaaagt gctaggatta caggtgtgag ccacccacac ccagcccaga 90900
tactgggccc tgtccgtcaa tccatttgca gtcaccaagc accagctgcg tgcaccgcat 90960
tgtgccaatg tctggaagga tgctcacaac tatcaacaca gataactaat aatatcaaca 91020
ataccacagt gtaaatgcaa agcaatatgt gcctggtctc atttaattct cacatcaaac 91080

ccttgggata catatcatta gcaccctcat ttgctagaga aaactcagtt ctgagggtgg 91140
atgatttgcc aaggccctgg gaattcggac taactccctt cataggtggc tgcaagtgcc 91200
tgtggcccag acattcccat agataggtca ttttctcaca ccagcttata tttcttgtgc 91260
cagacacagg gtccaaaccc atttgcatta cgtctctgag acttcacaag accttcctgt 91320
gaatttgtta ccattattat tattattttc ttgttttact ttttttttt ttttttttt 91380
tagaccgagt tctgctcttg ttgcccaggc ctgggtgcag tggcgcaatc tcggctcaat 91440
gcaacctcca cctcccgggt tcgagcgatt cttctgcctc agcctcctga gtagctggga 91500
tgacagacac acaccaccac acctggctaa tttttgtatt tttagtaaaa atgggttttc 91560
accatgttgg ttaggctggt ctcaaacgcc tgacctcagg tgatccacct gcctcggcct 91620
cccaaagtgc tgggattaca ggcgtgagcc accgcgcctg gcctttttt ttttttttg 91680
agacaagatc tcactctgtc acccaggctg gagtgcagtg gggcgatctc agctcactgc 91740
aacctctgcc tccctggttc aagtgattct cctgcctcag cctctcaagt acctggaatt 91800
acaggcacgt gccaccacgc ccagctaatt tttgtatttt tagtagagac ggggtttcac 91860
catgttggcc aggcttgtct tgaactccta acctcaactg atgcacctgt cccgacctcc 91920
caaagtgctg ggattatagg catgagccac cgcgcctggc cttattattc gtcttcttag 91980
tctgctttca gatgaggaca cggagccaca ggagttacaa gggtggaggt gctgggaagt 92040
caggaccaaa atcagcctcc tgactcccca tctcattttc tcaatcatca tgggttttgc 92100
cccccaagaa gagaaccagc caccatgggt gctaaaccgg tggctgatat agcaaagtgt 92160
gttggagcag agatcccagc gggcttccta gaggaagatc acaaaaaatg ggcagagccc 92220
acaaggcaca gtacaggttt cctctctcca gtccacataa gggcattcac caggaacctg 92280
ggggctgggt ggccttggcc caaccctctg aaactcaccc tgtggctcct cactcaccag 92340
atggacacag caggaatctg tcccacctgg ctcagggagg gcctaccccc acctcccacc 92400
ccaccccaca ggcctgtttg catgccaggc cagagttggc cacatgccca catatctctc 92460
ctcgttctgc aggctccggg aaggaaagtc caaggccaag gttatcatgg ggttcacata 92520
ccttaagggg tgggtggagg ggttggctca caagctacag gttattcaat gcagtgctat 92580
tcgtgatcac aaaagatcgg aactgatctc acgtccatca tcaggggact ggactaagat 92640
attttggcac aaccacatac gactcaagtg tcaagggagg aagagtgggg gagtcttgaa 92700
taaataacaa aagctggcgt tgacacagga ctttgcacat ggtggaggct ccttgcaagt 92760
gctttgcatg ttattaactc attcaatcct tacatcaccc caggaggagg aaccattatt 92820
atctgtttaa aatgcctgta atcccagcac tttgggaggc ccaggtggga ggatcacttg 92880
agttcaggag ttcaagacca gcctgggcaa caaagtgaga cttcatctct acaaaaaatt 92940
caaaaaatta gccaagcctg gtgatccaca cctgtagtac tagctattca ggaagccaag 93000
gtgggaggat tgcttgagcc caggaattcg aggctgcagt gagccaggat tgcaccacta 93060
cactccagcc tgggtgacaa agcaagatcc tgtctcaaaa aaaaaaaaaa aaaaaaaaaa 93120
aaaaaaaata tatatatata tacacacaca cacacacaga gagagagaga tacacatata 93180
atattttaaa atatatatac ctcaaaaaat atatatataa tatttaaaaa tatataaaat 93240
gagggtgcca cttggttgag tttatggtta aaaaaaagaa taaaatttaa aaaagaggca 93300
ccaagaagtg aagtttcttg ccccaggttc atggccaaca aacagtggac tgggccgggc 93360
acggtggctc acacctgtaa tcccagcaat ttgggaggct gaggtgggag gatcgcttga 93420
gttcaggagt tcgagaccag cctgggcaac atggcaagat cccatctcca ctggtgcagt 93480
ggctcacgcc tgtaatccca gcactttggg aggctgaggt gggcagatca caaggtcagg 93540
agatcgagac cattctggca aacatggtga aaccctgtct ctactaaaaa tacaaaaaaa 93600
aaaaaaaaaa attagccggg cgtggtggcg ctcacctgta gtcctagcta ctcgggaggc 93660
tgaggcagga gaatcacttg aacctgggag gcagaggttg cagtgagccg agatcgcgcc 93720
actgcactcg ggcctgggca atagagtgag actctgtctc aaaaaaaaaa aaaccgtctc 93780
tactaaaaaa ctgcaaaaat tagccaggca tggcggcata cacctgtagt cccagctacc 93840
caggaggctg aagtgggagg atcacccgag ctcaggaggt tgaggctgca gtgagccaag 93900
atcacaccac tgcgctccag cctggcaacc agagtaagat cctgtctcaa aacaaacaga 93960
caaacaaaca gtagacctgg aatttggtgc aagcagcagg gccagatcca tgcttggtcc 94020
tctcctccca gcatctctgt tttgtcctgg gtccctctgc caggagctcc ctggaacccg 94080
ggaaggaaga gaagcatgca gacaagcgtc agcaccccca ccctccgctg gccttgggga 94140
gcaggtgtca ttagacgagg ctcaactgaa gcctgcatct gaaacagatt ctcataactc 94200
aggcgctgtg gtagccaact tctctctaca gtcaattacg gccagcgggg cccactgatt 94260
atttttatag cctttcctgg agtcatgaca aggaaaacta aatgatccac aggacccctt 94320
tcatcactaa cagccgggtt tcacggttgg gggtggagga aggaaagaaa aatcactttt 94380
ttccccactt tgagttaatc aacagaactc aagtctgggc agccaatatg ttggtgttga 94440
gaaaagctgt tctcaagcag aactaattgg caacagaaat ggaattttct tccccacctc 94500

cctaaaaaac ataaacatgc tttatcccag agaattaccc ttcagaatag gtattgcaga 94560
cgtgtcgtgt gcagccgcct gtgcgaggct ggtaatctca cgccgacctg gccaaaggct 94620
gcctgtgctg gttacagctc aaccagagca gcctcttacg caatacaatg gtcatgaagg 94680
tcagtggccc aaaccagccc agccagacca gagtggacac ttgctttcct gatgcccagc 94740
acctatctcc tgctcctacg aacagccttt ggcttttgtt gggtcggggg gtgggagggc 94800
accctgattt gcaggtacaa gtgtgagtgg cattgatacc ccctcaactc cagagatgag 94860
ctctgacagg cgtaagccaa agaacatatt ccggggaaat ttcaagaagg ggcatatgac 94920
ctaacaagaa acaatagctg gcacagtggc tcacacctta atcccaggac tttgggggggc 94980
taaggcgggt gaatctattt cagctcagga gtttgagacc agcctgatca acaaagtgag 95040
accccagtct ctgcaaaaaa taaaaactgg ctgggcgtgg tggtgcatgc ctgtagtccc 95100
agctacttgg gaggctgaga tgggaggatc tgcttgagcc caggaggtgg aggctgcagt 95160
gagccaagat tgcaccactg cactccagcc tgggcgacaa agccaaactc tgtctcaaaa 95220
aaaaaaaaaa aaaagaaaag aaaagaaaag aaacaataag gcactagaaa aaaaaaaaca 95280
tataatgagg cttctggaaa agatagctct ttttatttta gagaaattga ggttcaaaga 95340
cgtgatgtaa ctgctcagag gtatacagtg aggtggtagg ggatccaggg tttgaaccca 95400
agtctgtagg actgaggagt ttgcaaccct tcactgcagg cgctactgaa aggcagcata 95460
aaccttggac gaagccagaa gagctggatt caaacccagt tctgccattt actccctgtg 95520
taatttcagg caagtcactt aacctctctg ttcctcagtt tccatatctg taaagtgggg 95580
cttctaaggg cacctccatt tgcaggatct gagaggtaaa taattaacag caatatctgt 95640
aaagtgcatg caacagtgcc tgtcacggac caaggattcg ccccttcctc accacaccgt 95700
tccccacacg cgttgagaac cagaccaaat aaaaggaggt ggaggggagg aaggaaaagt 95760
tgatgttatc agatctgtaa tccctacgcc atgtgttcct ttctgtagca cagctgccag 95820
gcttgcctct cctgcaggag aagctgtgcc acaaagatgt gggacgtcac aaacacgcag 95880
cccattcaag gcttttggac attccagccc cgtccttgat gtcagtcaag atctagggca 95940
aattccaccc attcaggtgg caaaaagtaa gatgtttgac aaatgccatg tgtagagggt 96000
ggcttgtgaa ttggtacaac cattagaaga taattcagca tacgatttca tattccagca 96060
attctacttc caggtacaaa cttgagacac actcctgtat gtgtgcaata ggacagtaca 96120
agaaccctca aagcagaacc gtgtatgtag caaacaaaac tgacaaatgg aaacaaccca 96180
catggtcata gacaggaaaa ataaatgctg gtatgccatg gaatagtaca cagcagagaa 96240
aagtgaatga acaagtgata agcaattata tcaacgaatt ttagcaataa aatgatttat 96300
aaaaatgtaa gtgcaggggc tgggcaccat ggctcacacc tgtaatccca gccctttggg 96360
atgctaaggc aggctgattg cttgaggcca ggagtttgag gccagcctgg gcaatatgca 96420
acatggcaaa gccccgtctc tacaaaaacg tagccaagtg tggtggtgca cgcctgtagt 96480
cccagctacc agggaggctg aggtgggagg atcacctgag cccaagaagt caaggctaca 96540
gtgagctgag attgcaccac tgcactccag cctgggtgac agagtgagac cctgtctcaa 96600
aatatgtgtg tgtgtgtgtg tctgcatgta tgtgccagaa gacaagatat atctttacgt 96660
aaagttcaaa cagcagtaaa agtaaatgat atattatttt ggcatacatg taagtgataa 96720
aacttttttt ttttttgaga cggagtttcg cactcatcgc ccaggctgga gtgcagtgga 96780
gcaatcttgg ctcaccgcaa cctctgcctg ccatgttcaa gtaattctcc tgcctcggcc 96840
tccctagtag ctgggtttac aggcatgcac caccacacct ggctaatttt atatttttag 96900
tagagacggg gtttctccat gttggtcagg ctggtctcga actcctgacc tcaggtgatc 96960
tgcccgcctt ggcctcccaa agtactggga ttacaggcat gagccaccgt gcctggtgat 97020
aaaactattt ttttaagcaa gggaaattga gaagatgaaa atgttctgga aatggatggc 97080
gctgataatt gcccaacatt gtgaatgtgc gtaatgccgc tgaattgtac ccttaaaatg 97140
gctaaagtga taaattctat ccacaatttt tagaaaggca agggaaagct aaacacagaa 97200
ttcaagatag cagctactac cacagtgaga gagggaggga ggcaagatgg gaaaagagtt 97260
cggaagttga tataaaatgg ttgtctgagt tccagcacgc aggtgggacc atgggttcac 97320
aggcatttat cattttataa atagctataa agagattgtt agatggaagt gtaggtgggg 97380
ctgttcaggt gccctttcag tatgtcatta tggaattatg aatcattcaa tcctacttac 97440
tttttctttt tttttttttct ttgagacgga gtctcactcc attggccagg ttggagtgca 97500
gtggtgagat ctcagcttgc tgcaacctcc agctcctggg ttcaagtgat tcttgtgcct 97560
cagcctcccg agtagctggg attacaggtt catgtcacca cacctgtctt atttttgtat 97620
ttttagtaga gacgggctgt ctctactcct gttggtcaga ctggtatcaa actcctgact 97680
gcaggtgatc cacctgcctc ggcctcccaa agtactggga ttacaggtgt gagccaccac 97740
acctggtcaa ttctacttac ttgaggtcca tttttaaaat tctagaggag gccgggtgca 97800
gtgtctcaca cctctaatct cagaaacttt gggaggccaa ggcaggtgga tcacctgaag 97860
tcagtagttc aagaccaacg tggccaacat agcaaaaccc tgtctctact aaaaatacaa 97920

```
aaattagtta agcgtggtag tgtgcaccta taatcccagc tactcgggag gctgaggcag   97980
gagaatcacc tgaacccggg aggcagaggt tgcagtgagc cgagattaca ccattgtact   98040
ccatcctggg cgacagtgtg aggctccatc tcaaaaaaaa aaataaatcc ctaccttcag   98100
gaaactcaca ttccagcagg ggacacttaa gaaaataaga atatatatgt atgttagatg   98160
atgagacgtg tgtggtaagg agaaaaataa accagaaaag ggatgaagaa gaccagggag   98220
tgaaggaagc tgtaatttta aatggagagt caggatggcc tcgctgcaaa ggtgatgttt   98280
gtgtaaagac ctgcgcgata tgaacaagtg ggccacttgg atatctgaag aatgagcacc   98340
caggcataga gaaaagcgat tgcaaaggtc ctggggcagg actgtgcccg acctcaagaa   98400
cagcaattgt ggggagtggg aaggaggaga gataaggtta gagaggcctg ggccctgcag   98460
gccttgtggg ccgtgatgag gactttgcct gtgctctggg caaggtggga ccagggctgg   98520
agataggagg tgtcctgaac agagaaggaa ctggatctaa tttcatttta acaggaccct   98580
gctggctgca cacggagagt agaccaggag ggaggcaaga ggagaagcag agacactggt   98640
ggggaggcaa ctgcaatagc ccagagagag acaccatggc cgctgggacc agggtggagg   98700
gagcggaggt gacagagctg tcagcttctg ggtgcaggtt gacaggggag ccaacggaat   98760
ttcttttctg ttcctctttg tttttgagac agcgtctcat tctgtcactc aggctggatt   98820
gcagtggcac aaacatggct cattgcagct tcaacttcct gggctcaagt gagcctccta   98880
cctcagtttc ccgagtacct gggaccacag gtgcatgcaa ccacacccag ctaatttta    98940
aaaatatgtt tgtagagaca aaggtcttgc tatgttgacc aggctggtct tgaactcctg   99000
gtctcaagcg atcctcctgc cttggcctcc caaagtgctg agattgtagg tgtgagccac   99060
cacgtccagt gtagaatttc ttttttgctg gaaagtggga gaggctgggc tctatttaag   99120
tgtttaaggg tcaagaaagt ttgagacctg gttataaagt agagacatgg ccatccaaac   99180
tgagcccttc ttgagagctg atgatgggat agaatttttt ttttttttt tttgagatgg   99240
agtcttgctc tatcacccag tgcagtggcg cgatctcggc tcactgcaac ctccgcctcc   99300
caagttcaag cgattctcct gcctcagcct cccgagtaac tgagattaca ggagcccgcc   99360
actgcgcctg gctaattttt gtatttttag tagagacggg gtttcaccat cttggccagg   99420
cttgtcttga actcctgacc tcgtgatcca cgtgcctcgg cctcccaaag tgctgggatt   99480
acaggcatga gccactgcgc ctggcctgat gggataaaat tttttaaaaa ataggctggg   99540
cacggtggcc cacacctgta atcccagcat tttgggaggc caaggtgggc ggatcacctg   99600
aggtcaggag tttgagacca gcctggccaa catggcgaaa cccccgtctc tactaaaaat   99660
acagaaatca ggcatggtgg catgtgcctg taatcctagc tactcgggag gctgaggcag   99720
gagaatttct tgaacctggg aggcagaggt tgaagtgagc aggatcacgc cactgcactc   99780
tagcctgggt gacagaacga gactctgtct caaaaaaaaa aaaaaaaacc ctcctcttct   99840
aggacttctg tgatgtgggc attaaaatga atgttttagg tcttcatggg ctcacatgga   99900
aaaatgtcca ggacacctgt tggttgaaag aaggaagatg cagaataaaa tgtatagaat   99960
gatcccattt ttgaaaatta aaattacgtg acaaagaaaa aaataggaat gaagtgaatg  100020
aatggcctga aagcatagac gcctggctct ttctttgttt tttttaagaa ggagtctcgc  100080
tctgttgccc caggctggag tgcagtggcg caatctcggc tcactgcaag ctccgcctcc  100140
cgggttcacg ccattctcct gcctcagcct cccgagtggc tgggattaca ggcgcccacc  100200
accatgccca gctaattttt tgtattttta gtagagacgg ggtttcactg tgttagccag  100260
gatggtctcg atctcctgac ctcgtgatcc acccgcctcg gcctcccaga gtgctgggat  100320
tacaggtgtg agccactgcg cccggccaag acaacgggct cttaacaggg gtggcccagg  100380
gtgagtatag gagctactga ggtttaaact caggcgcgcc cttcctacct cgcaaaacaa  100440
taaaacacgc atgcttgggg ccgggcatgg tggttcatgc ctgtaattcc agcacttttg  100500
gaggcctacg cgggtagatc acctgaggtc aggagttcga gaccagcctg accaatatgg  100560
tgaaacccca tctctactaa aaatacaaca attagccagg tgtggtggtg ggcacctgta  100620
gtcccagcta ctcaggagct cctgagacag gagaatcact tgaacccagg aggcggaggt  100680
tgcagtgagc tgagatcgca ccactgcact ccagcctggg cgacagagcg agactctgtt  100740
aaaaaaaaaa aaaagaaaga aagaaaaaaa agtgcacgtt ttttagttct cttttaaact  100800
gctgtgggca tggttctcct cttgtattgc agttgcgttt ctcttagcta atgtcccacc  100860
tgggccttgt ccttggcctg gactataaga gagcggaact tgagaatgag aaatattttc  100920
ctctcgtgct tgctggctta ggcccttaaa actggaaagg gcccacctgg ctcctagagt  100980
ttctaaaaat agcaagctat ctgaactttt cctataggtt tggcttagcc gttcctctga  101040
cttgttccaa gatgccattt ctgttagggc atcattcgct gtgcatgaaa acaaaggatg  101100
gcaggagaca gactagaaac ggaagaggac taatcgggag ccgctgcgga cagaatccag  101160
aaatgccctg caaatgcaga cacagtggac gcaatggaga gtgcatacca gggcctgtgt  101220
cgctggtgga gctggggccc acatgccgct agtgtagaca ggatctctac tccacccgat  101280
ctctctgcat ccactccagt gcttcgggca agagagagga gtttggctgc tggtttaagt  101340
```

```
gagatgggga aattgaaaga tttgcatcca aggcccatgc ctggggtctg aattcctttg  101400
gaagaggact gaggactgtt caggagacga tttttgacaa tccagacaca accatagatg  101460
ctgtggaacc agtggtatgc tggcaaaggt ttagcaacca gctctccaag ggaaagtgag  101520
tgtgtggtgc acaagtgtgc atgggcgagt acatatattt gcatatccac acacacatat  101580
acttcggttt attataaatt gtattgacgt aggctgggcg cagtggctcg tgcctgtaat  101640
cccaacactt tgggaggctg aggtaggtgg atcacttgag gttaggagtt cgagaccagc  101700
ctggccagca tggtgaaacc ctgtctctgc caaaaatata aaaaactagc caggcatggt  101760
agcgggtgcc tgtaatccta gctatttggg aaggtgagac aggagaattg cttgaacctg  101820
ggaggcggaa gttgcagtga gccatgatta cgccactgtc ctccagccta ggcaacagag  101880
tgtgactcca tctcaaaaaa aaaaaaaaat tgttttgatg taaatgatgt gcagcacaca  101940
atttacaaat aaaaataaaa cttacaatac cttttctttt ataaatgtaa tataatcatt  102000
tcactcacag gtagcagttt tgttgatttt tgcccccagc aaaatctgta atcaacctat  102060
ggttacaatt gatgaaggag tgtaattctt cagaaatacc agttaatatt ttcctttcta  102120
aaaaatttct aattatttgt ttatgtattt ttatttttt gagacagtgt cttgctctgt  102180
ggcccaggct ggagtgcaat ggtgagatca cagctcatgg cagcctcaac ctcttgggct  102240
caagcaatcc tcccacctca gcctcctgag tagctaggac tacaggcacg caccaccaca  102300
ctcggctagt tttttctcaa attatttgta gaaatggggt cttgttatgt tgcccaggct  102360
ggtctcaaac tcttgggctc aaatgatcct cctgtctcag cctcccaaaa tgctggaatt  102420
acatgcatga gtcaccacac tcagccttga ctacctttgt ttttcataga atttattgaa  102480
ttgtaagttc atataattta atttttaaca atggtgtgtt tagcaacccg ttcacctaat  102540
tcctgaaaat ctgacaatca gctttcacaa gctggcacaa gctgcctcca gcacacctct  102600
gtctggggac aacatggcaa agaatatcac cgaactgagg aggaagccat tctcttcaca  102660
tctgcccaga acccagggta tctcaagcac taaacagcgg gaagctttgg gagtttacag  102720
agatggcacc atggacgctg ctgtgctggg cagggaagca tctccaaatg gcctcagagg  102780
aaagaggaag caggaaggat gaataaaact agagactggt tcacaaaggc actcgaaata  102840
ccccttttgga gctccccagg atgaactggg ggaccctggg gggagcactg aggttctgat  102900
ggggaaaacc tcagcaacca gtgggcatct gggccaaatc acttagcaca aacgctgagc  102960
cacaaaatca tgatacgctt tcaacaaccc attaggcacc tcagaagctg cagggccata  103020
gggttgttac aaccgacacc catgcaggtg gtaccacagg ccatcagtcc ttttccccaa  103080
gtccaccttc attcccgcct cctccagtac catcctggac ttctctaggg aagtggtggg  103140
gagatttact cctctccaaa cttctttttt ttttttttt ttttttgaga cgaagtctcg  103200
ttctgttggc caggctggag tgcagtggca cgatctcagc tcactgcacc tctccctccc  103260
cagttcaagt gattctcctg cctcagcctc ccaagtagct gggactatag gcacgcacca  103320
ccacggccag ctaatttttg tatttttaat agagatgagg tttcaccatg ttggccaggc  103380
tagtctcaaa cacctgactt caggtgatcc gcctgccttg gcctctcaaa gtgctgagat  103440
tacaggcgtg agccaccgcg cccagcctca ctccaaactt gatcttactc tcagacatct  103500
tactctcaga cgcttaagtt ctcagttcgg aacttaagcg ctcttcaacc agactcatgg  103560
aatctcaggg ttgcggagag attttagagg tttcctgaaa tagtcccttt gttttaaaga  103620
cgaggaagct gagagaaggg aagtgacttg ctcaaggtca cagagaaaat ccagggtgga  103680
actgggtagg gtgaccaatt gtcccagttt acctgggact gggggggctt ctggacaagt  103740
tgctcccaga tctgagacca caactcaggg ctgacttgtc cccaaggtgg gtggtggggg  103800
gttcacagcc agtccctgaa aggaaaggag gcctggatca gtacagagct gctttgggat  103860
ggaatttttcc aagggaagaa aaaagaaaag gccacatctg ggtgctggga cctttcactc  103920
tggcccgatg cctggaaccc cagggattcc ccacctgctg tgtgtttcct ggcccttgag  103980
tgtaacctgc accctccctt tccgtgccag ggagacacga gctgacttta tctgtctctt  104040
atctcttggc tgctgccagc cacagctgca gggatatata tgcaaatagc ttacgataat  104100
attaatatgt gattcccccc aggggaggca tgtggaaagc gctgtatgcg tttcacaatt  104160
ctgtttcatc caaaaacact gcacgggccc agagtgattc gaaacagatt ttctgcaaag  104220
gcaaaataaa attggaacaa aacctagttg aggcatatgc cagtctccct gcccccagct  104280
ctctccacct ctgacatatt aaccctcttc tctcatgccc ccaggagcct cctacgacaa  104340
ggcagcaaat ctaggaaatt gcactgggca ctcttcgttc aagcctggag cccctgcccc  104400
atcccagggc agccagcctc caccctgggc tgacacatcc tttagagagt aaaaggctgc  104460
ttgccagtgt cagcctgtca ctccttctgt cccacctctg cctccttcct gcaggtaatg  104520
ctccatccat acctccttct ccttcacccc tgctgcttgg gataattgca gaaccatgga  104580
gcacagaata cagaatactg ggggtgtaca ggagagttta gccaaagcaa gtcagaaaaa  104640
cctaggtctt ttttcgtttc tgccactgac cggctgtgtg acctcagcaa gtcacttcac  104700
ttcgcccagc tgctgtttcc tcagggtaca atgaggacac caataatact taccctgcag  104760
```

ggggcttacc gggatttccc gagccgacgc ttcaaaaatg cctacacagt gcctggcgta 104820
tagcagatac acaaggaata gctgtcatca tgagaatctc ttaaagatca cctagttcaa 104880
ccactgtttt agaaacggac aaatggaggc ctgcagaggg caaataactt gcctaaggcc 104940
acacagcacg ataccgccat cccatctcag cctcaaccca ggttccctcc tccggccttg 105000
ggagctccag gtggcctgtg aggaacggct gcctcctcct gtcaccccca gctccagaag 105060
tctgtccaca caaggcggcg tcacggcaca catggggagc agtcacttca cactcaccat 105120
cgagcaggtc tggacactcg agtgcagtcc cgccgccctc cttgcagctg cctcactttc 105180
cctattgccg ccagcaagcg tctgctccca tctggcccgg gactcccgga ctcgagctag 105240
ggctctgcaa attccatcca cactggccac cagccgctgg tcccgctctc tgggaagatc 105300
gccttgagga cctgctgcgc cccgagtctt ccttctggtg cagggaggcc ggtgccctgc 105360
cgggctctga taatgcagcc gggactctta tctggcctgt gtcagggtgc aggcggccat 105420
ggagctgggg ttccaggaag ccctcctggg gccccccagc cggccccgct ccccccggat 105480
gccgcctgct gctctggacg cggccgattg cttgtcagtg tcactcccag ctctgccggg 105540
gggaattcca tgctggcccc cagcaggcgg ggcccccacc ccttcacgtc ccacccccca 105600
ctcccatttt ggcaagggga ctgggaaaag gcagctaatt tcaagtccgc acagcgtttg 105660
tggtcgtgtc ctgaatcctc cacgattaat cacagagcat ctgatttctg ctttgcctca 105720
gagaggggcg gaggggacgc ctggaagttt ctgtttactc cattctgcac caggctgcgt 105780
gctaatcaca aacagactgg gacgcagcct acccctccta aactgctctt ggccaccccc 105840
tccctcctcc agccctctcc ttcctcttct taccttgtca ctttcctcca gcccccttcct 105900
cactctttct cctttccctc ctttctttcc cctttcccat ctgtccgcct cttcagtcca 105960
gatctgatcc attgcacacc ccttccttcc gtcctgggtt tcccccaagc ccctttcccc 106020
ctttgcgcct cccacttctc ctagattgag agtcagcttg gttctttcct ttacatccat 106080
tagtgagggt caggctcttt tgttatgttt ttttttcttt tgtataactt aattatttca 106140
gggttcgggg tgggcgctcg ccccttgccc agtcacactg gtgtgtgtgc gactcctaca 106200
aagttaacag tttctccagg tcaaggggtg ggatccaggc ttggtgatgt gcacaatttc 106260
ttttgtccac ttgacacatc tctgcgtcct gattctgctc agggacggac ccaagaacaa 106320
agcagccatt taccgcctcc ggaggggagg ccagccctgt ggcacatcca gggccttgga 106380
acacctagag acagatttct ctccctcgcc ttggctcctt tccactctgc agctagtgtg 106440
gaaaagaaac cagaaataaa cagcaccaaa gaacaggaac ggacacccct ccccattaaa 106500
gcacacacac agactctgaa gggtaatttg gcaaagacct ctgaaaacca gagatgaggg 106560
tctcctacta cttatgcctg tgcacaggag acaggcacag agatgcttgc tgagagctgc 106620
ttatcatagg aaatgatggg aaataactga aatgctcatc caataatgac tgcttgaaca 106680
agatgtgaaa gatatggtac atcaggc 106707

<210> 9
<211> 403
<212> DNA
<213> Homo sapiens

<400> 9
tcaaacccta ggttctctct gcactattaa cacagacatc tcaggacatg gtttgctttt 60
ttttaagact taaataggaa actaattttt ctttctttaa agcaattgcg ttcttcagtg 120
aactctttct ttaggccagt tgatggcttc ttagcagttt attgacgaga tcctagggta 180
gcttccgaag ctgggttgat tgattgcatt tgggtgcgga tggccaaagt gagtggccct 240
actgcctgtg ctgctcaggg ctcctgggct gatgtggtgg cttcttccct ttgtgctgct 300
gaacataggg aaagtgaggt tcacagtcca ccatccacca gccgccgtct gtgagctcca 360
ccagcactcg cagcaagtca gtcgggctga gagtgtggtt gta 403

<210> 10
<211> 399
<212> DNA
<213> Homo sapiens

<400> 10
tcaaacccta ggttctctct gcactattaa cacagacatc tcaggacatg gtttgctttt 60

ttttaagact taaataggaa actaattttt ctttctttaa agcaattgcg ttcttcagtg 120
aactctttct ttaggccagt tgatggcttc ttagcagttt attgacgaga tcctagggta 180
gcttccgaag ctgggttgat tgcatttggg tgcggatggc caaagtgagt ggccctactg 240
cctgtgctgc tcagggctcc tgggctgatg tggtggcttc ttccctttgt gctgctgaac 300
atagggaaag tgaggttcac agtccaccat ccaccagccg ccgtctgtga gctccaccag 360
cactcgcagc aagtcagtcg ggctgagagt gtggttgta 399

<210> 11
<211> 401
<212> DNA
<213> Homo sapiens

<400> 11
cctaaccagc ttctcctctt agaatttcct gctgatccat cccagaatga atgggagttc 60
aatctgtact gaattatctt tcatctagca attgtgcaat tccaaatgca ggtgaggttg 120
agggaaagcg ggcatcccct cacatccatg ggatctatgt gtgggttgta tcaagagtct 180
caaaaatgct catattctcc agtcctagaa ttgggtctag cctaaggaaa taattcagaa 240
ctccatgttt ttttaaagct ttatgcacaa acatgatcat aagacatgat ttatgataaa 300
aattggatga agtaaacttt cctatgaaag cagctgagta ggttaaatta aggtatacac 360
ttgatagccc cttcataaag aattctcaag tgaaaaaaaa a 401

<210> 12
<211> 401
<212> DNA
<213> Homo sapiens

<400> 12
cctaaccagc ttctcctctt agaatttcct gctgatccat cccagaatga atgggagttc 60
aatctgtact gaattatctt tcatctagca attgtgcaat tccaaatgca ggtgaggttg 120
agggaaagcg ggcatcccct cacatccatg ggatctatgt gtgggttgta tcaagagtct 180
caaaaatgct catattctcc ggtcctagaa ttgggtctag cctaaggaaa taattcagaa 240
ctccatgttt ttttaaagct ttatgcacaa acatgatcat aagacatgat ttatgataaa 300
aattggatga agtaaacttt cctatgaaag cagctgagta ggttaaatta aggtatacac 360
ttgatagccc cttcataaag aattctcaag tgaaaaaaaa a 401

<210> 13
<211> 401
<212> DNA
<213> Homo sapiens

<400> 13
cacctgcagt ccccacaaca acctgggagg ggctgctgtc accagcctct ccttacagac 60
aaggaacctg gccttctgag gggaggtccc acggggcaga ggcacagctg ggatcacagc 120
tactgtttga cggcacattc tgcaccttga atgtggcctg gggttacctc actgaacccc 180
gtgcagtgcc ctcctcctat acagataggg aagcagaggc tcagagatgt gaatcatttg 240
cctagagtca cacagctgac tgaagagtgt gctgcaactc caggacttgt ctcccttacc 300
tccccacaaa gagtgtgtat ctctgagccc agcccagcca cagcctccac tctgggcccc 360
gattaactct ggctattagg aaggcagaag aggctccccg a 401

<210> 14
<211> 401
<212> DNA
<213> Homo sapiens

<400> 14
cacctgcagt ccccacaaca acctgggagg ggctgctgtc accagcctct ccttacagac 60
aaggaacctg gccttctgag gggaggtccc acggggcaga ggcacagctg ggatcacagc 120

tactgtttga cggcacattc tgcaccttga atgtggcctg gggttacctc actgaacccc 180
gtgcagtgcc ctcctcctat gcagataggg aagcagaggc tcagagatgt gaatcatttg 240
cctagagtca cacagctgac tgaagagtgt gctgcaactc caggacttgt ctcccttacc 300
tccccacaaa gagtgtgtat ctctgagccc agcccagcca cagcctccac tctgggcccc 360
gattaactct ggctattagg aaggcagaag aggctccccg a 401

<210> 15
<211> 401
<212> DNA
<213> Homo sapiens

<400> 15
atgtgcgggg atggcatggg gaagggtgca cgatagagtg acaagagctg agccaaggac 60
agtgggagaa acagacgggg aggctggcag gaaacgtgga gctcgggtca cccggtggga 120
gtggtggcca ctgggtcact gctggaagga ggtgcactca ccggagaccc tgggagcccc 180
caaacaggga cagctcatcc agggcgaagt cggcattgag gaaggcgaag ctctccagga 240
tgcactccat caggctctcg gccgaggtgt gctcctgccg tgctctgcag ggctgtggac 300
gaagtggcca gacctgaggg caacaccggg ccccacccac ccgactggga cactggccag 360
gggcctcacg gcagacttgg gcaatgtccc ggtcccaagc c 401

<210> 16
<211> 401
<212> DNA
<213> Homo sapiens

<400> 16
atgtgcgggg atggcatggg gaagggtgca cgatagagtg acaagagctg agccaaggac 60
agtgggagaa acagacgggg aggctggcag gaaacgtgga gctcgggtca cccggtggga 120
gtggtggcca ctgggtcact gctggaagga ggtgcactca ccggagaccc tgggagcccc 180
caaacaggga cagctcatcc ggggcgaagt cggcattgag gaaggcgaag ctctccagga 240
tgcactccat caggctctcg gccgaggtgt gctcctgccg tgctctgcag ggctgtggac 300
gaagtggcca gacctgaggg caacaccggg ccccacccac ccgactggga cactggccag 360
gggcctcacg gcagacttgg gcaatgtccc ggtcccaagc c 401

<210> 17
<211> 401
<212> DNA
<213> Homo sapiens

<400> 17
gccaattccc gtgcccctca gcagaagtct cagggcctcc agaaaggcct ccgcccaccc 60
cctctcagcc ctgttacctt tcatcctgat gtggaactcg cccaggtgaa cctccagggc 120
cccctcgatg agccacatgt cctgcaaagc cccggaggtg gctcagctgg ctgcctgggg 180
ctaggccacg agggcctcta accatccctg cagccagaca gaggccacag gcagagagac 240
gcctccttgg ggcccagaac acctcctcca gcccccactg gcccagctct cgatgtcccc 300
actgcccggc ccagctcttg ctgcccctgc tgcccagccc agcttggccc ggcccacctc 360
ggcgcactcg tgcaggctgc ggcccagctc ctgcaggctc t 401

<210> 18
<211> 401
<212> DNA
<213> Homo sapiens

<400> 18
gccaattccc gtgcccctca gcagaagtct cagggcctcc agaaaggcct ccgcccaccc 60
cctctcagcc ctgttacctt tcatcctgat gtggaactcg cccaggtgaa cctccagggc 120
cccctcgatg agccacatgt cctgcaaagc cccggaggtg gctcagctgg ctgcctgggg 180

ctaggccacg agggcctcta cccatccctg cagccagaca gaggccacag gcagagagac 240
gcctccttgg ggcccagaac acctcctcca gcccccactg gcccagctct cgatgtcccc 300
actgcccggc ccagctcttg ctgcccctgc tgcccagccc agcttggccc ggcccacctc 360
ggcgcactcg tgcaggctgc ggcccagctc ctgcaggctc t 401

<210> 19
<211> 416
<212> DNA
<213> Homo sapiens

<400> 19
cactgcccca ccccaccctg caacatccac gagccagctg accttgctga tgtgaaactc 60
catcttccga atgtgccttt ccacacagcg cgtttgcttc tcccggaaaa agggaagatg 120
tttgcaaagt tgcctgggcc acccacctgc cccgcttgcc cctgccaccc tcctacaggt 180
cctaactcag agaatggggc ttagtgccgg gccggccccc caccatccct gaggaaggct 240
catcgcagag actcagcctt cccattccta aaatggggag gagacccagg ttttctgccc 300
atcaggcagc caggaagatg caatgaggca cagtcattct catccagcca ggcccagccc 360
acctcactca ccgtatgcag actcaccttg tccaggtcat aatagaaagc ctgtga 416

<210> 20
<211> 400
<212> DNA
<213> Homo sapiens

<400> 20
cactgcccca ccccaccctg caacatccac gagccagctg accttgctga tgtgaaactc 60
catcttccga atgtgccttt ccacacagcg cgtttgcttc tcccggaaaa agggaagatg 120
tttgcaaagt tgcctgggcc acccacctgc cccgcttgcc cctgccaccc tcctacaggt 180
cctaactcag agaatggggc ccctcaccat ccctgaggaa ggctcatcgc agagactcag 240
ccttcccatt cctaaaatgg ggaggagacc caggttttct gcccatcagg cagccaggaa 300
gatgcaatga ggcacagtca ttctcatcca gccaggccca gcccacctca ctcaccgtat 360
gcagactcac cttgtccagg tcataataga aagcctgtga 400

<210> 21
<211> 401
<212> DNA
<213> Homo sapiens

<400> 21
cagcggcaga ggccactgtg acatacccaa gatgtgacac ctgacccact ttcctggcat 60
tacagaagcc atcccaagtc caggtcacct gatggccaag gtctataaaa taggaccacc 120
taaaagaaat gcacctccat acactgccca ccttagcatt acttctagaa ccgagagaca 180
gtgtgacatg ggcctaaaac atgtgaactg ctgtacgtgc caaagtgaag ttaactcagt 240
gcaacgtgaa gaggctattc cataaacctc tagttctgag aaagagtcac accgtgacat 300
aggctagaag gaacgcaggg ttcatctttt actcctggcc aaggctatct gggtgggaag 360
caggcaggga ggggtctcac cagcctggaa ttcctcctgg t 401

<210> 22
<211> 401
<212> DNA
<213> Homo sapiens

<400> 22
cagcggcaga ggccactgtg acatacccaa gatgtgacac ctgacccact ttcctggcat 60
tacagaagcc atcccaagtc caggtcacct gatggccaag gtctataaaa taggaccacc 120
taaaagaaat gcacctccat acactgccca ccttagcatt acttctagaa ccgagagaca 180
gtgtgacatg ggcctaaaac gtgtgaactg ctgtacgtgc caaagtgaag ttaactcagt 240

gcaacgtgaa gaggctattc cataaacctc tagttctgag aaagagtcac accgtgacat 300
aggctagaag gaacgcaggg ttcatctttt actcctggcc aaggctatct gggtgggaag 360
caggcaggga ggggtctcac cagcctggaa ttcctcctgg t 401

<210> 23
<211> 401
<212> DNA
<213> Homo sapiens

<400> 23
ctctgcagtg cgtgctccac aagatcagag tcctcctgcc ttagtcactg ccaggtttcc 60
agtgcccaag gaccgggctg agcacgcggc tgcaccctga catacttgct tactaaacga 120
atgaccagga acttaacctg tcacctcttg tagacaagac ccatccacgc ttccccagga 180
agagacagag aggaggcgag atagaggaat gcacttctta aaggcagcac acagcccagc 240
cttacttgag gcctcttttc aatgcttcga agatcttctt cacctgctgg ggcttcgggt 300
ctgcacagac cgaccccttc cgcagcgtgc cgtacatctt ggaggatttt gcaggcattc 360
gcgatctcac ggagttcctg ttgatggact ttctgtgaga a 401

<210> 24
<211> 401
<212> DNA
<213> Homo sapiens

<400> 24
ctctgcagtg cgtgctccac aagatcagag tcctcctgcc ttagtcactg ccaggtttcc 60
agtgcccaag gaccgggctg agcacgcggc tgcaccctga catacttgct tactaaacga 120
atgaccagga acttaacctg tcacctcttg tagacaagac ccatccacgc ttccccagga 180
agagacagag aggaggcgag gtagaggaat gcacttctta aaggcagcac acagcccagc 240
cttacttgag gcctcttttc aatgcttcga agatcttctt cacctgctgg ggcttcgggt 300
ctgcacagac cgaccccttc cgcagcgtgc cgtacatctt ggaggatttt gcaggcattc 360
gcgatctcac ggagttcctg ttgatggact ttctgtgaga a 401

<210> 25
<211> 401
<212> DNA
<213> Homo sapiens

<400> 25
aggaacaaac agagtcagac caaatctcca tgacagtgag ttcctggatc tagctatgtc 60
taaagctgaa cctgcccgtg gactttgcag ttacatgagc caactggctc tctttttag 120
cttaagccag ctggagttgg gagtgtggac tggatgatcc taaaaactgc ctttcagtgg 180
tgatggctgg gtccctcaac atttagagat gtagcagcat ctcaagactg attataggag 240
tacgaggcca gggcaccctc atcacagcac agagctggtt tccctggcat ctaagcctct 300
tctcaggatc ccataactta tccatgaggc tggctgatgc agcctttgct caccaacaga 360
tgtgttgaat tctgctctta gccctctaaa gccatcagcc a 401

<210> 26
<211> 401
<212> DNA
<213> Homo sapiens

<400> 26
aggaacaaac agagtcagac caaatctcca tgacagtgag ttcctggatc tagctatgtc 60
taaagctgaa cctgcccgtg gactttgcag ttacatgagc caactggctc tctttttag 120
cttaagccag ctggagttgg gagtgtggac tggatgatcc taaaaactgc ctttcagtgg 180
tgatggctgg gtccctcaac ctttagagat gtagcagcat ctcaagactg attataggag 240
tacgaggcca gggcaccctc atcacagcac agagctggtt tccctggcat ctaagcctct 300

tctcaggatc ccataactta tccatgaggc tggctgatgc agcctttgct caccaacaga 360
tgtgttgaat tctgctctta gccctctaaa gccatcagcc a 401

<210> 27
<211> 401
<212> DNA
<213> Homo sapiens

<400> 27
tcttggggca tcaacttaaa cccttcccag gctcccctcc actgagaatg tgtctcaagg 60
cctcactgca gcccatgagg ctccgcaggg tcctcctccc tccctgactg ctgtcacgca 120
tgccagccgc acacctgctt tctgtccctt aaagctcatt cccacccagg acatctgcac 180
tcgcagctgc ctcccgccgc cgaaggcttc ccggcccacc cccatctgca cacgcgcaga 240
tccacttctt ctgtcccttc ctgcctccac tccccatgcc cctgtctcgt caggctctcc 300
caggagacca tgggtgccct cccccacccc cagttcagtt ccctcacagc actgccacca 360
gctggatctg tctcaattat cactggctta ttgtttgctg c 401

<210> 28
<211> 401
<212> DNA
<213> Homo sapiens

<400> 28
tcttggggca tcaacttaaa cccttcccag gctcccctcc actgagaatg tgtctcaagg 60
cctcactgca gcccatgagg ctccgcaggg tcctcctccc tccctgactg ctgtcacgca 120
tgccagccgc acacctgctt tctgtccctt aaagctcatt cccacccagg acatctgcac 180
tcgcagctgc ctcccgccgc tgaaggcttc ccggcccacc cccatctgca cacgcgcaga 240
tccacttctt ctgtcccttc ctgcctccac tccccatgcc cctgtctcgt caggctctcc 300
caggagacca tgggtgccct cccccacccc cagttcagtt ccctcacagc actgccacca 360
gctggatctg tctcaattat cactggctta ttgtttgctg c 401

<210> 29
<211> 401
<212> DNA
<213> Homo sapiens

<400> 29
gtttctgtct gctggttgtt aaacacgtat gagctcctca ctgctgttac ccctatcagc 60
acctatgcag ggcctgagaa gctgctcaaa ctgcttgatc cccccagcca agccaggcaa 120
gagaataagg acggagtagg gagggattcc caaaggtgag tagttgagac gtactccgga 180
gccagcctgg gcactggagc cggaaggggc ttccccggcc cctccctctg caccttccca 240
tcagaagcct tctgggccgt tcctggagct tcaccccagt cactccactt caaggtcaga 300
gagaaggaca attgctaagc agttcctccc gatgcaaagc tcaaaacaag ccccaggtcc 360
tcctgctcag tgtgagagag aggacgacga aggagggaaa c 401

<210> 30
<211> 401
<212> DNA
<213> Homo sapiens

<400> 30
gtttctgtct gctggttgtt aaacacgtat gagctcctca ctgctgttac ccctatcagc 60
acctatgcag ggcctgagaa gctgctcaaa ctgcttgatc cccccagcca agccaggcaa 120
gagaataagg acggagtagg gagggattcc caaaggtgag tagttgagac gtactccgga 180
gccagcctgg gcactggagc tggaaggggc ttccccggcc cctccctctg caccttccca 240
tcagaagcct tctgggccgt tcctggagct tcaccccagt cactccactt caaggtcaga 300
gagaaggaca attgctaagc agttcctccc gatgcaaagc tcaaaacaag ccccaggtcc 360

tcctgctcag tgtgagagag aggacgacga aggagggaaa c 401

<210> 31
<211> 401
<212> DNA
<213> Homo sapiens

<400> 31
ccaaggtgtg gctggaggaa gcagagtcta ctcccgctaa gtctgtccgc tcactgctgg 60
ccaaagctgc cctgcgtctc ctccccaccg ccagccagag ggaacctgca atttcacctc 120
atttagaggt aaaacatcta aatttaacgt tatgggcttt tggggctggg tggcttttat 180
gcctgagtcc ctcacttagg gctccttttt atccactcaa atgccagcta gggcttagtt 240
tgtttatagg agtttccaaa atagctcctt tggtttcgca tgaaaggaaa tggcaaaata 300
gcccaggaag aggaatgtga gtttacacag aagacagaca ggcgcccgag gaggcttctc 360
tgggaaccag ttcgcctgta ccagaggggg cccgagaaag t 401

<210> 32
<211> 401
<212> DNA
<213> Homo sapiens

<400> 32
ccaaggtgtg gctggaggaa gcagagtcta ctcccgctaa gtctgtccgc tcactgctgg 60
ccaaagctgc cctgcgtctc ctccccaccg ccagccagag ggaacctgca atttcacctc 120
atttagaggt aaaacatcta aatttaacgt tatgggcttt tggggctggg tggcttttat 180
gcctgagtcc ctcacttagg actcctttt atccactcaa atgccagcta gggcttagtt 240
tgtttatagg agtttccaaa atagctcctt tggtttcgca tgaaaggaaa tggcaaaata 300
gcccaggaag aggaatgtga gtttacacag aagacagaca ggcgcccgag gaggcttctc 360
tgggaaccag ttcgcctgta ccagaggggg cccgagaaag t 401

<210> 33
<211> 401
<212> DNA
<213> Homo sapiens

<400> 33
tacgttagaa ggaccctacg ttagaagggt gaggcgctag ggccatagcc taagggcact 60
gggaaccctg tgggcatgcg cagttcaagc ccatccccgc tccctccagc tgctgtccat 120
ccctgccaca cctgaccatt tgcctaacct agatccttcc tgtcttgcat ttcctcaagc 180
atccggagcc caggactgct gagtcaaccc tctggaatgc ccacaactcc ccacaggcca 240
gccggccttg ggactcccgc acagccacgt gagccggtgg agccgggtct gtttgctagt 300
ggaggctgtt aacagcacgg gaagtggtca agggttcaac aagagatgag ccatctggtc 360
ctccagaggt aaacaattta caagagacac atcaagccgg c 401

<210> 34
<211> 401
<212> DNA
<213> Homo sapiens

<400> 34
tacgttagaa ggaccctacg ttagaagggt gaggcgctag ggccatagcc taagggcact 60
gggaaccctg tgggcatgcg cagttcaagc ccatccccgc tccctccagc tgctgtccat 120
ccctgccaca cctgaccatt tgcctaacct agatccttcc tgtcttgcat ttcctcaagc 180
atccggagcc caggactgct cagtcaaccc tctggaatgc ccacaactcc ccacaggcca 240
gccggccttg ggactcccgc acagccacgt gagccggtgg agccgggtct gtttgctagt 300
ggaggctgtt aacagcacgg gaagtggtca agggttcaac aagagatgag ccatctggtc 360
ctccagaggt aaacaattta caagagacac atcaagccgg c 401

<210> 35
<211> 401
<212> DNA
<213> Homo sapiens

<400> 35
gggtttcccc caagcccctt tccccctttg cgcctcccac ttctcctaga ttgagagtca 60
gcttggttct ttcctttaca tccattagtg agggtcaggc tcttttgtta tgttttttt 120
tcttttgtat aacttaatta tttcagggtt cggggtgggc gctcgcccct tgcccagtca 180
cactggtgtg tgtgcgactc ctacaaagtt aacagtttct ccaggtcaag gggtgggatc 240
caggcttggt gatgtgcaca atttcttttg tccacttgac acatctctgc gtcctgattc 300
tgctcaggga cggacccaag aacaaagcag ccatttaccg cctccggagg ggaggccagc 360
cctgtggcac atccagggcc ttggaacacc tagagacaga t 401

<210> 36
<211> 401
<212> DNA
<213> Homo sapiens

<400> 36
gggtttcccc caagcccctt tccccctttg cgcctcccac ttctcctaga ttgagagtca 60
gcttggttct ttcctttaca tccattagtg agggtcaggc tcttttgtta tgttttttt 120
tcttttgtat aacttaatta tttcagggtt cggggtgggc gctcgcccct tgcccagtca 180
cactggtgtg tgtgcgactc ttacaaagtt aacagtttct ccaggtcaag gggtgggatc 240
caggcttggt gatgtgcaca atttcttttg tccacttgac acatctctgc gtcctgattc 300
tgctcaggga cggacccaag aacaaagcag ccatttaccg cctccggagg ggaggccagc 360
cctgtggcac atccagggcc ttggaacacc tagagacaga t 401

<210> 37
<211> 1068
<212> PRT
<213> Homo sapiens

<400> 37
Met Leu Val Gly Ser Gln Ser Phe Ser Pro Gly Gly Pro Asn Gly Ile
 1   5   10   15
Ile Arg Ser Gln Ser Phe Ala Gly Phe Ser Gly Leu Gln Glu Arg Arg
            20   25   30
Ser Arg Cys Asn Ser Phe Ile Glu Asn Ser Ser Ala Leu Lys Lys Pro
        35   40   45
Gln Ala Lys Leu Lys Lys Met His Asn Leu Gly His Lys Asn Asn Asn
    50   55   60
Pro Pro Lys Glu Pro Gln Pro Lys Arg Val Glu Glu Val Tyr Arg Ala
65   70   75   80
Leu Lys Asn Gly Leu Asp Glu Tyr Leu Glu Val His Gln Thr Glu Leu
                85   90   95
Asp Lys Leu Thr Ala Gln Leu Lys Asp Met Lys Arg Asn Ser Arg Leu
            100   105   110
Gly Val Leu Tyr Asp Leu Asp Lys Gln Ile Lys Thr Ile Glu Arg Tyr
        115   120   125
Met Arg Arg Leu Glu Phe His Ile Ser Lys Val Asp Glu Leu Tyr Glu
    130   135   140
Ala Tyr Cys Ile Gln Arg Arg Leu Gln Asp Gly Ala Ser Lys Met Lys
145   150   155   160
Gln Ala Phe Ala Thr Ser Pro Ala Ser Lys Ala Ala Arg Glu Ser Leu
                165   170   175

```
Thr Glu Ile Asn Arg Ser Phe Lys Glu Tyr Thr Glu Asn Met Cys Thr
            180                 185                 190
Ile Glu Val Glu Leu Glu Asn Leu Leu Gly Glu Phe Ser Ile Lys Met
        195                 200                 205
Lys Gly Leu Ala Gly Phe Ala Arg Leu Cys Pro Gly Asp Gln Tyr Glu
    210                 215                 220
Ile Phe Met Lys Tyr Gly Arg Gln Arg Trp Lys Leu Lys Gly Lys Ile
225                 230                 235                 240
Glu Val Asn Gly Lys Gln Ser Trp Asp Gly Glu Glu Thr Val Phe Leu
                245                 250                 255
Pro Leu Ile Val Gly Phe Ile Ser Ile Lys Val Thr Glu Leu Lys Gly
            260                 265                 270
Leu Ala Thr His Ile Leu Val Gly Ser Val Thr Cys Glu Thr Lys Glu
        275                 280                 285
Leu Phe Ala Ala Arg Pro Gln Val Val Ala Val Asp Ile Asn Asp Leu
    290                 295                 300
Gly Thr Ile Lys Leu Asn Leu Glu Ile Thr Trp Tyr Pro Phe Asp Met
305                 310                 315                 320
Glu Asp Met Thr Ala Ser Ser Gly Ala Gly Asn Lys Ala Ala Ala Leu
                325                 330                 335
Gln Arg Arg Met Ser Met Tyr Ser Gln Gly Thr Pro Glu Thr Pro Thr
            340                 345                 350
Phe Lys Asp His Ser Phe Phe Arg Trp Leu His Pro Ser Pro Asp Lys
        355                 360                 365
Pro Arg Arg Leu Ser Val Leu Ser Ala Leu Gln Asp Thr Phe Phe Ala
    370                 375                 380
Lys Leu His Arg Ser Arg Ser Phe Ser Asp Leu Pro Ser Leu Arg Pro
385                 390                 395                 400
Ser Pro Lys Ala Val Leu Glu Leu Tyr Ser Asn Leu Pro Asp Asp Ile
                405                 410                 415
Phe Glu Asn Gly Lys Ala Ala Glu Glu Lys Met Pro Leu Ser Leu Ser
            420                 425                 430
Phe Ser Asp Leu Pro Asn Gly Asp Cys Ala Leu Thr Ser His Ser Thr
        435                 440                 445
Gly Ser Pro Ser Asn Ser Thr Asn Pro Glu Ile Thr Ile Thr Pro Ala
    450                 455                 460
Glu Phe Asn Leu Ser Ser Leu Ala Ser Gln Asn Glu Gly Met Asp Asp
465                 470                 475                 480
Thr Ser Ser Ala Ser Ser Arg Asn Ser Leu Gly Glu Gly Gln Glu Pro
                485                 490                 495
Lys Ser His Leu Lys Glu Glu Asp Pro Glu Glu Pro Arg Lys Pro Ala
            500                 505                 510
Ser Ala Pro Ser Glu Ala Cys Arg Arg Gln Ser Ser Gly Ala Gly Ala
        515                 520                 525
Glu His Leu Phe Leu Glu Asn Asp Val Ala Glu Ala Leu Leu Gln Glu
    530                 535                 540
Ser Glu Glu Ala Ser Glu Leu Lys Pro Val Glu Leu Asp Thr Ser Glu
545                 550                 555                 560
Gly Asn Ile Thr Lys Gln Leu Val Lys Arg Leu Thr Ser Ala Glu Val
                565                 570                 575
Pro Met Ala Thr Asp Arg Leu Leu Ser Glu Gly Ser Val Gly Gly Glu
            580                 585                 590
Ser Glu Gly Cys Arg Ser Phe Leu Asp Gly Ser Leu Glu Asp Ala Phe
        595                 600                 605
Asn Gly Leu Leu Leu Ala Leu Glu Pro His Lys Glu Gln Tyr Lys Glu
    610                 615                 620
Phe Gln Asp Leu Asn Gln Glu Val Met Asn Leu Asp Asp Ile Leu Lys
```

625 630 635 640
Cys Lys Pro Ala Val Ser Arg Ser Arg Ser Ser Ser Leu Ser Leu Thr
645 650 655
Val Glu Ser Ala Leu Glu Ser Phe Asp Phe Leu Asn Thr Ser Asp Phe
660 665 670
Asp Glu Glu Glu Asp Gly Asp Glu Val Cys Asn Val Gly Gly Gly Ala
675 680 685
Asp Ser Val Phe Ser Asp Thr Glu Thr Glu Lys His Ser Tyr Arg Ser
690 695 700
Val His Pro Glu Ala Arg Gly His Leu Ser Glu Ala Leu Thr Glu Asp
705 710 715 720
Thr Gly Val Gly Thr Ser Val Ala Gly Ser Pro Leu Pro Leu Thr Thr
725 730 735
Gly Asn Glu Ser Leu Asp Ile Thr Ile Val Arg His Leu Gln Tyr Cys
740 745 750
Thr Gln Leu Val Gln Gln Ile Val Phe Ser Ser Lys Thr Pro Phe Val
755 760 765
Ala Arg Ser Leu Leu Glu Lys Leu Ser Arg Gln Ile Gln Val Met Glu
770 775 780
Lys Leu Ala Ala Val Ser Asp Glu Asn Ile Gly Asn Ile Ser Ser Val
785 790 795 800
Val Glu Ala Ile Pro Glu Phe His Lys Lys Leu Ser Leu Leu Ser Phe
805 810 815
Trp Thr Lys Cys Cys Ser Pro Val Gly Val Tyr His Ser Pro Ala Asp
820 825 830
Arg Val Met Lys Gln Leu Glu Ala Ser Phe Ala Arg Thr Val Asn Lys
835 840 845
Glu Tyr Pro Gly Leu Ala Asp Pro Val Phe Arg Thr Leu Val Ser Gln
850 855 860
Ile Leu Asp Gln Ala Glu Pro Leu Leu Ser Ser Ser Leu Ser Ser Glu
865 870 875 880
Val Val Thr Val Phe Gln Tyr Tyr Ser Tyr Phe Thr Ser His Gly Val
885 890 895
Ser Asp Leu Glu Ser Tyr Leu Ser Gln Leu Ala Arg Gln Val Ser Met
900 905 910
Val Gln Thr Leu Gln Ser Leu Arg Asp Glu Lys Leu Leu Gln Thr Met
915 920 925
Ser Asp Leu Ala Pro Ser Asn Leu Leu Ala Gln Gln Glu Val Leu Arg
930 935 940
Thr Leu Ala Leu Leu Leu Thr Arg Glu Asp Asn Glu Val Ser Glu Ala
945 950 955 960
Val Thr Leu Tyr Leu Ala Ala Ala Ser Lys Asn Gln His Phe Arg Glu
965 970 975
Lys Ala Leu Leu Tyr Tyr Cys Glu Ala Leu Thr Lys Thr Asn Leu Gln
980 985 990
Leu Gln Lys Ala Ala Cys Leu Ala Leu Lys Ile Leu Glu Ala Thr Glu
995 1000 1005
Ser Ile Lys Met Leu Val Thr Leu Cys Gln Ser Asp Thr Glu Glu Ile
1010 1015 1020
Arg Asn Val Ala Ser Glu Thr Leu Leu Ser Leu Gly Glu Asp Gly Arg
1025 1030 1035 1040
Leu Ala Tyr Glu Gln Leu Asp Lys Phe Pro Arg Asp Cys Val Lys Val
1045 1050 1055
Gly Gly Arg His Gly Thr Glu Val Ala Thr Ala Phe
1060 1065

<210> 38

<211> 591
<212> PRT
<213> Homo sapiens

<400> 38

```
Met Leu Val Gly Ser Gln Ser Phe Ser Pro Gly Gly Pro Asn Gly Ile
 1               5                  10                  15
Ile Arg Ser Gln Ser Phe Ala Gly Phe Ser Gly Leu Gln Glu Arg Arg
            20                  25                  30
Ser Arg Cys Asn Ser Phe Ile Glu Asn Ser Ser Ala Leu Lys Lys Pro
        35                  40                  45
Gln Ala Lys Leu Lys Lys Met His Asn Leu Gly His Lys Asn Asn Asn
    50                  55                  60
Pro Pro Lys Glu Pro Gln Pro Lys Arg Val Glu Glu Val Tyr Arg Ala
65                  70                  75                  80
Leu Lys Asn Gly Leu Asp Glu Tyr Leu Glu Val His Gln Thr Glu Leu
                85                  90                  95
Asp Lys Leu Thr Ala Gln Leu Lys Asp Met Lys Arg Asn Ser Arg Leu
            100                 105                 110
Gly Val Leu Tyr Asp Leu Asp Lys Gln Ile Lys Thr Ile Glu Arg Tyr
        115                 120                 125
Met Arg Arg Leu Glu Phe His Ile Ser Lys Val Asp Glu Leu Tyr Glu
    130                 135                 140
Ala Tyr Cys Ile Gln Arg Arg Leu Gln Asp Gly Ala Ser Lys Met Lys
145                 150                 155                 160
Gln Ala Phe Ala Thr Ser Pro Ala Ser Lys Ala Ala Arg Glu Ser Leu
                165                 170                 175
Thr Glu Ile Asn Arg Ser Phe Lys Glu Tyr Thr Glu Asn Met Cys Thr
            180                 185                 190
Ile Glu Val Glu Leu Glu Asn Leu Leu Gly Glu Phe Ser Ile Lys Met
        195                 200                 205
Lys Gly Leu Ala Gly Phe Ala Arg Leu Cys Pro Gly Asp Gln Tyr Glu
    210                 215                 220
Ile Phe Met Lys Tyr Gly Arg Gln Arg Trp Lys Leu Lys Gly Lys Ile
225                 230                 235                 240
Glu Val Asn Gly Lys Gln Ser Trp Asp Gly Glu Glu Thr Val Phe Leu
                245                 250                 255
Pro Leu Ile Val Gly Phe Ile Ser Ile Lys Val Thr Glu Leu Lys Gly
            260                 265                 270
Leu Ala Thr His Ile Leu Val Gly Ser Val Thr Cys Glu Thr Lys Glu
        275                 280                 285
Leu Phe Ala Ala Arg Pro Gln Val Val Ala Val Asp Ile Asn Asp Leu
    290                 295                 300
Gly Thr Ile Lys Leu Asn Leu Glu Ile Thr Trp Tyr Pro Phe Asp Met
305                 310                 315                 320
Glu Asp Met Thr Ala Ser Ser Gly Ala Gly Asn Lys Ala Ala Ala Leu
                325                 330                 335
Gln Arg Arg Met Ser Met Tyr Ser Gln Gly Thr Pro Glu Thr Pro Thr
            340                 345                 350
Phe Lys Asp His Ser Phe Phe Ser Asn Leu Pro Asp Asp Ile Phe Glu
        355                 360                 365
Asn Gly Lys Ala Ala Glu Glu Lys Met Pro Leu Ser Leu Ser Phe Ser
    370                 375                 380
Asp Leu Pro Asn Gly Asp Cys Ala Leu Thr Ser His Ser Thr Gly Ser
385                 390                 395                 400
Pro Ser Asn Ser Thr Asn Pro Glu Ile Thr Ile Thr Pro Ala Glu Phe
                405                 410                 415
```

```
Asn Leu Ser Ser Leu Ala Ser Gln Asn Glu Gly Met Asp Asp Thr Ser
            420                 425                 430
Ser Ala Ser Ser Arg Asn Ser Leu Gly Glu Gly Gln Glu Pro Lys Ser
        435                 440                 445
His Leu Lys Glu Glu Asp Pro Glu Glu Pro Arg Lys Pro Ala Ser Ala
    450                 455                 460
Pro Ser Glu Ala Cys Arg Arg Gln Ser Ser Gly Ala Gly Ala Glu His
465                 470                 475                 480
Leu Phe Leu Glu Asn Asp Val Ala Glu Ala Leu Leu Gln Glu Ser Glu
                485                 490                 495
Glu Ala Ser Glu Leu Lys Pro Val Glu Leu Asp Thr Ser Glu Gly Asn
            500                 505                 510
Ile Thr Lys Gln Leu Val Lys Arg Leu Thr Ser Ala Glu Val Pro Met
        515                 520                 525
Ala Thr Asp Arg Leu Leu Ser Glu Gly Ser Val Gly Gly Glu Ser Glu
    530                 535                 540
Gly Cys Arg Ser Phe Leu Asp Gly Ser Leu Glu Asp Ala Phe Asn Gly
545                 550                 555                 560
Leu Leu Leu Ala Leu Glu Pro His Lys Glu Gln Tyr Lys Glu Phe Gln
                565                 570                 575
Asp Leu Asn Gln Glu Val Met Asn Leu Asp Asp Ile Leu Lys Lys
            580                 585                 590
```

<210> 39
<211> 1048
<212> PRT
<213> Homo sapiens

<400> 39

```
Met Leu Val Gly Ser Gln Ser Phe Ser Pro Gly Gly Pro Asn Gly Ile
 1               5                  10                  15
Ile Arg Ser Gln Ser Phe Ala Gly Phe Ser Gly Leu Gln Glu Arg Arg
            20                  25                  30
Ser Arg Cys Asn Ser Phe Ile Glu Asn Ser Ser Ala Leu Lys Lys Pro
        35                  40                  45
Gln Ala Lys Leu Lys Lys Met His Asn Leu Gly His Lys Asn Asn Asn
    50                  55                  60
Pro Pro Lys Glu Pro Gln Pro Lys Arg Val Glu Glu Val Tyr Arg Ala
65                  70                  75                  80
Leu Lys Asn Gly Leu Asp Glu Tyr Leu Glu Val His Gln Thr Glu Leu
                85                  90                  95
Asp Lys Leu Thr Ala Gln Leu Lys Asp Met Lys Arg Asn Ser Arg Leu
            100                 105                 110
Gly Val Leu Tyr Asp Leu Asp Lys Gln Ile Lys Thr Ile Glu Arg Tyr
        115                 120                 125
Met Arg Arg Leu Glu Phe His Ile Ser Lys Val Asp Glu Leu Tyr Glu
    130                 135                 140
Ala Tyr Cys Ile Gln Arg Arg Leu Gln Asp Gly Ala Ser Lys Met Lys
145                 150                 155                 160
Gln Ala Phe Ala Thr Ser Pro Ala Ser Lys Ala Ala Arg Glu Ser Leu
                165                 170                 175
Thr Glu Ile Asn Arg Ser Phe Lys Glu Tyr Thr Glu Asn Met Cys Thr
            180                 185                 190
Ile Glu Val Glu Leu Glu Asn Leu Leu Gly Glu Phe Ser Ile Lys Met
        195                 200                 205
Lys Gly Leu Ala Gly Phe Ala Arg Leu Cys Pro Gly Asp Gln Tyr Glu
    210                 215                 220
```

```
Ile Phe Met Lys Tyr Gly Arg Gln Arg Trp Lys Leu Lys Gly Lys Ile
225                 230                 235                 240
Glu Val Asn Gly Lys Gln Ser Trp Asp Gly Glu Glu Thr Val Phe Leu
                245                 250                 255
Pro Leu Ile Val Gly Phe Ile Ser Ile Lys Val Thr Glu Leu Lys Gly
            260                 265                 270
Leu Ala Thr His Ile Leu Val Gly Ser Val Thr Cys Glu Thr Lys Glu
        275                 280                 285
Leu Phe Ala Ala Arg Pro Gln Val Val Ala Val Asp Ile Asn Asp Leu
    290                 295                 300
Gly Thr Ile Lys Leu Asn Leu Glu Ile Thr Trp Tyr Pro Phe Asp Met
305                 310                 315                 320
Glu Asp Met Thr Ala Ser Ser Gly Ala Gly Asn Lys Ala Ala Ala Leu
                325                 330                 335
Gln Arg Arg Met Ser Met Tyr Ser Gln Gly Thr Pro Glu Thr Pro Thr
            340                 345                 350
Phe Lys Asp His Ser Phe Phe Arg Trp Leu His Pro Ser Pro Asp Lys
        355                 360                 365
Pro Arg Arg Leu Ser Val Leu Ser Ala Leu Gln Asp Thr Phe Phe Ala
    370                 375                 380
Lys Leu His Arg Ser Arg Ser Phe Ser Asp Leu Pro Ser Leu Arg Pro
385                 390                 395                 400
Ser Pro Lys Ala Val Leu Glu Leu Tyr Ser Asn Leu Pro Asp Asp Ile
                405                 410                 415
Phe Glu Asn Gly Lys Ala Ala Glu Glu Lys Met Pro Leu Ser Leu Ser
            420                 425                 430
Phe Ser Asp Leu Pro Asn Gly Asp Cys Ala Leu Thr Ser His Ser Thr
        435                 440                 445
Gly Ser Pro Ser Asn Ser Thr Asn Pro Glu Ile Thr Ile Thr Pro Ala
    450                 455                 460
Glu Phe Asn Leu Ser Ser Leu Ala Ser Gln Asn Glu Gly Met Asp Asp
465                 470                 475                 480
Thr Ser Ser Ala Ser Ser Arg Asn Ser Leu Gly Glu Gly Gln Glu Pro
                485                 490                 495
Lys Ser His Leu Lys Glu Glu Asp Pro Glu Glu Pro Arg Lys Pro Ala
            500                 505                 510
Ser Ala Pro Ser Glu Ala Cys Arg Arg Gln Ser Ser Gly Ala Gly Ala
        515                 520                 525
Glu His Leu Phe Leu Glu Asn Asp Val Ala Glu Ala Leu Leu Gln Glu
    530                 535                 540
Ser Glu Glu Ala Ser Glu Leu Lys Pro Val Glu Leu Asp Thr Ser Glu
545                 550                 555                 560
Gly Asn Ile Thr Lys Gln Leu Val Lys Arg Leu Thr Ser Ala Glu Val
                565                 570                 575
Pro Met Ala Thr Asp Arg Leu Leu Ser Glu Gly Ser Val Gly Gly Glu
            580                 585                 590
Ser Glu Gly Cys Arg Ser Phe Leu Asp Gly Ser Leu Glu Asp Ala Phe
        595                 600                 605
Asn Gly Leu Leu Leu Ala Leu Glu Pro His Lys Glu Gln Tyr Lys Glu
    610                 615                 620
Phe Gln Asp Leu Asn Gln Glu Val Met Asn Leu Asp Asp Ile Leu Lys
625                 630                 635                 640
Cys Lys Pro Ala Val Ser Arg Ser Arg Ser Ser Ser Leu Ser Leu Thr
                645                 650                 655
Val Glu Ser Ala Leu Glu Ser Phe Asp Phe Leu Asn Thr Ser Asp Phe
            660                 665                 670
Asp Glu Glu Glu Asp Gly Asp Glu Val Cys Asn Val Gly Gly Gly Ala
```

```
        675                 680                 685
Asp Ser Val Phe Ser Asp Thr Glu Thr Glu Lys His Ser Tyr Arg Ser
    690                 695                 700
Val His Pro Glu Ala Arg Gly His Leu Ser Glu Ala Leu Thr Glu Asp
705                 710                 715                 720
Thr Gly Val Gly Thr Ser Val Ala Gly Ser Pro Leu Pro Leu Thr Thr
                725                 730                 735
Gly Asn Glu Ser Leu Asp Ile Thr Ile Val Arg His Leu Gln Tyr Cys
            740                 745                 750
Thr Gln Leu Val Gln Gln Ile Val Phe Ser Ser Lys Thr Pro Phe Val
        755                 760                 765
Ala Arg Ser Leu Leu Glu Lys Leu Ser Arg Gln Ile Gln Val Met Glu
    770                 775                 780
Lys Leu Ala Ala Val Ser Asp Glu Asn Ile Gly Asn Ile Ser Ser Val
785                 790                 795                 800
Val Glu Ala Ile Pro Glu Phe His Lys Lys Leu Ser Leu Leu Ser Phe
                805                 810                 815
Trp Thr Lys Cys Cys Ser Pro Val Gly Val Tyr His Ser Pro Ala Asp
            820                 825                 830
Arg Val Met Lys Gln Leu Glu Ala Ser Phe Ala Arg Thr Val Asn Lys
        835                 840                 845
Glu Tyr Pro Gly Leu Ala Asp Pro Val Phe Arg Thr Leu Val Ser Gln
    850                 855                 860
Ile Leu Asp Gln Ala Glu Pro Leu Leu Ser Ser Ser Leu Ser Ser Glu
865                 870                 875                 880
Val Val Thr Val Phe Gln Tyr Tyr Ser Tyr Phe Thr Ser His Gly Val
                885                 890                 895
Ser Asp Leu Glu Ser Tyr Leu Ser Gln Leu Ala Arg Gln Val Ser Met
            900                 905                 910
Val Gln Thr Leu Gln Ser Leu Arg Asp Glu Lys Leu Leu Gln Thr Met
        915                 920                 925
Ser Asp Leu Ala Pro Ser Asn Leu Leu Ala Gln Gln Glu Val Leu Arg
    930                 935                 940
Thr Leu Ala Leu Leu Leu Thr Arg Glu Asp Asn Glu Val Ser Glu Ala
945                 950                 955                 960
Val Thr Leu Tyr Leu Ala Ala Ala Ser Lys Asn Gln His Phe Arg Glu
                965                 970                 975
Lys Ala Leu Leu Tyr Tyr Cys Glu Ala Leu Thr Lys Thr Asn Leu Gln
            980                 985                 990
Leu Gln Lys Ala Ala Cys Leu Ala Leu Lys Ile Leu Glu Ala Thr Glu
        995                 1000                1005
Ser Ile Lys Met Leu Val Thr Leu Cys Gln Ser Asp Thr Glu Glu Ile
    1010                1015                1020
Arg Asn Val Ala Ser Glu Thr Leu Leu Ser Leu Gly Glu Asp Gly Arg
1025                1030                1035                1040
Leu Ala Tyr Glu Gln Leu Asp Lys
                1045
```

<210> 40
<211> 479
<212> PRT
<213> Homo sapiens

<400> 40

```
Met Leu Val Gly Ser Gln Ser Phe Ser Pro Gly Gly Pro Asn Gly Ile
 1               5                  10                  15
Ile Arg Ser Gln Ser Phe Ala Gly Phe Ser Gly Leu Gln Glu Arg Arg
```

```
            20                  25                  30
Ser Arg Cys Asn Ser Phe Ile Glu Asn Ser Ser Ala Leu Lys Lys Pro
        35                  40                  45
Gln Ala Lys Leu Lys Lys Met His Asn Leu Gly His Lys Asn Asn Asn
    50                  55                  60
Pro Pro Lys Glu Pro Gln Pro Lys Arg Val Glu Glu Val Tyr Arg Ala
65                  70                  75                  80
Leu Lys Asn Gly Leu Asp Glu Tyr Leu Glu Val His Gln Thr Glu Leu
                85                  90                  95
Asp Lys Leu Thr Ala Gln Leu Lys Asp Met Lys Arg Asn Ser Arg Leu
            100                 105                 110
Gly Val Leu Tyr Asp Leu Asp Lys Gln Ile Lys Thr Ile Glu Arg Tyr
        115                 120                 125
Met Arg Arg Leu Glu Phe His Ile Ser Lys Val Asp Glu Leu Tyr Glu
    130                 135                 140
Ala Tyr Cys Ile Gln Arg Arg Leu Gln Asp Gly Ala Ser Lys Met Lys
145                 150                 155                 160
Gln Ala Phe Ala Thr Ser Pro Ala Ser Lys Ala Ala Arg Glu Ser Leu
                165                 170                 175
Thr Glu Ile Asn Arg Ser Phe Lys Glu Tyr Thr Glu Asn Met Cys Thr
            180                 185                 190
Ile Glu Val Glu Leu Glu Asn Leu Leu Gly Glu Phe Ser Ile Lys Met
        195                 200                 205
Lys Gly Leu Ala Gly Phe Ala Arg Leu Cys Pro Gly Asp Gln Tyr Glu
    210                 215                 220
Ile Phe Met Lys Tyr Gly Arg Gln Arg Trp Lys Leu Lys Gly Lys Ile
225                 230                 235                 240
Glu Val Asn Gly Lys Gln Ser Trp Asp Gly Glu Glu Thr Val Phe Leu
                245                 250                 255
Pro Leu Ile Val Gly Phe Ile Ser Ile Lys Val Thr Glu Leu Lys Gly
            260                 265                 270
Leu Ala Thr His Ile Leu Val Gly Ser Val Thr Cys Glu Thr Lys Glu
        275                 280                 285
Leu Phe Ala Ala Arg Pro Gln Val Val Ala Val Asp Ile Asn Asp Leu
    290                 295                 300
Gly Thr Ile Lys Leu Asn Leu Glu Ile Thr Trp Tyr Pro Phe Asp Met
305                 310                 315                 320
Glu Asp Met Thr Ala Ser Ser Gly Ala Gly Asn Lys Ala Ala Ala Leu
                325                 330                 335
Gln Arg Arg Met Ser Met Tyr Ser Gln Gly Thr Pro Glu Thr Pro Thr
            340                 345                 350
Phe Lys Asp His Ser Phe Phe Ser Asn Leu Pro Asp Asp Ile Phe Glu
        355                 360                 365
Asn Gly Lys Ala Ala Glu Glu Lys Met Pro Leu Ser Leu Ser Phe Ser
    370                 375                 380
Asp Leu Pro Asn Gly Asp Cys Ala Leu Thr Ser His Ser Thr Gly Ser
385                 390                 395                 400
Pro Ser Asn Ser Thr Asn Pro Glu Ile Thr Ile Thr Pro Ala Glu Phe
                405                 410                 415
Asn Leu Ser Ser Leu Ala Ser Gln Asn Glu Gly Met Asp Asp Thr Ser
            420                 425                 430
Ser Ala Ser Ser Arg Asn Ser Leu Gly Glu Gly Gln Glu Pro Lys Ser
        435                 440                 445
His Leu Lys Glu Glu Asp Pro Glu Glu Pro Arg Lys Pro Ala Ser Ala
    450                 455                 460
Pro Ser Glu Ala Cys Arg Arg Gln Ser Ser Gly Ala Gly Ala Glu
465                 470                 475
```